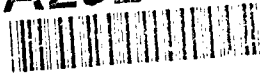


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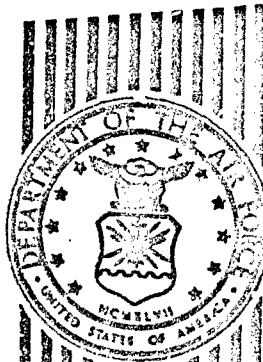
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ESL-TR-88-83
VOL III - PART 4

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**FULL-SCALE INCINERATION SYSTEM
DEMONSTRATION VERIFICATION TEST
BURNS AT THE NAVAL BATTALION CON-
STRUCTION CENTER, GULFPORT, MIS-
SISSIPPI - VOL III: TREATABILITY TESTS
PART 4**

D. J. HALEY, R. W. THOMAS, D. B. DERRINGTON, JR.

EG&G IDAHO, INC.
P. O. BOX 1625
IDAHO FALLS ID 83415

JULY 1991

FINAL REPORT

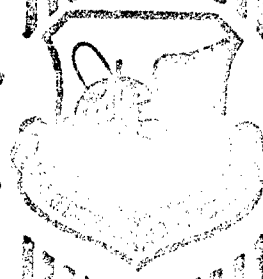
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			Incineration		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) This technical report is divided into eight volumes. This portion of the report comprises Volume II, which is further subdivided into 5 parts, including the appendixes. This volume describes the verification test burns conducted on a 100 ton/day mobile incinerator that was used to process soil contamination with the constituents of Herbicide Orange, namely 2,4,5-T, 2,4-D, and trace quantities of dioxin. The demonstration was conducted at the Naval Construction Battalion Center in Gulfport, Mississippi. This volume provides specific details concerning the planning efforts and data results from the test burns. Project managers and field engineers responsible for planning and implementation of hazardous waste remedial actions should find the information contained herein very useful.					
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PREFACE

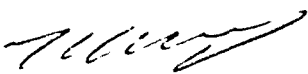
This report was prepared by EG&G Idaho, Inc., P. O. Box 1625, Idaho Falls, ID 83415, under Job Order Number (JON) 2103 9027, for the Air Force Engineering and Services Center, Engineering and Services Laboratory, Tyndall Air Force Base, Florida 32403-6001.


This report summarizes work done between September 1986 and December 1986. Major Terry Stoddart and Major Michael L. Shelley were the AFESC/RDVS Project Officers.

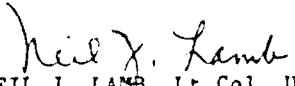
The information contained in this volume describes the events, the planning efforts, and the data results of a test burn conducted on a 100 ton/day mobile incinerator that was used to process soil contaminated with constituents of herbicide orange. This volume is subdivided into five parts; Part 1 contains the final report on the verification test burns, Parts 2 through 5 contain the appendixes. Volumes I and III through VIII describe the incinerator operations, the soil excavation activities, and the additional testing required by the Environmental Protection Agency.

This report has been reviewed by the Public Affairs Office (PA) and is releasable to the general public, including foreign nationals.

This report has been reviewed and is approved for publication.


MICHAEL L. SHELLEY, Maj, USAF, BSC
Chief, Environmental Actions R&D


FRANK P. GALLAGHER III, Col, USAF
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Laboratory


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Chief, Environics Division

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APPENDIX T

NARRATIVE AND SIGNIFICANT DATA SHEETS FROM ITAS ORGANIC AND INORGANIC ANALYTICAL REPORT

The document contained in this appendix is the detailed analytical report provided by the analytical laboratory used for the analysis of the samples collected during the Verification Test Burns at NCBC. This document was reproduced from the best available copy. Due to poor legibility, the legibility of the microfiche edition is also poor. Persons requiring the information contained in this appendix may write to the technical libraries listed below to obtain photocopied versions of the appendix. A nominal charge will be levied to cover reproduction and archival costs. Please be prepared to provide the following information:

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Verification Test Burns at the Naval Construction
Battalion Center, Gulfport, Mississippi: Treatability
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The documents contained in this appendix were published according to their own internal style, which deviates from the Air Force Engineering Services Center format. They have, therefore, been published without editing.

PART 4
APPENDIX T

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Introduction and Sample Identification List

INTRODUCTION

Enclosures

Enclosed are the results for samples associated with the USAF NCBC Full Scale Demo - 12/86. The analytical data summaries are contained in this report. The raw data associated with this report is contained in additional volumes. The raw data is grouped by analysis type. Within volumes the data is grouped by project code.

Volume 1 - Metals Analysis Raw Data

Volume 2 - BNA/VOST/Toxaphene/PCB Analysis Raw Data

Volume 3 - PAH Analysis Raw Data

Volume 4 - Herbicide Analysis Raw Data

Volume 5 - Inorganic Analysis Raw Data
Laboratory Bench Sheets

Sample Receipt Summary

The samples associated with this project were received in three shipments. Samples were received on December 9, 17, and 18, 1986. The samples received included 12 water samples, 5 stack samples plus associated blanks, 16 VOST pairs, and 10 air filters. Sample identifications and test assignments are summarized on the following pages.

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - BASE NUTRAL/ACID ANALYSIS

PRODUCED ON 01/17/87 AT 14:42 PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE
EGG23548	AA5828	ENT-B	01
	AA5829	ENT-1	01
	AA5830	ENT-2	01
EGG23549	AA5844	VB-1-F	63
	AA5845	VB-2-F	63
	AA5846	VB-3-F	63
	AA5847	VB-1-XAD	61
	AA5848	VB-1-PW	12
	AA5849	VB-1-C	12
	AA5850	VB-2-XAD	61
	AA5851	VB-2-PW	12
	AA5852	VB-2-C	12
	AA5853	VB-3-XAD	61
	AA5854	VB-3-PW	12
	AA5855	VB-3-C	12
EGG23550	AA5888	FS-1	31
	AA5889	FS-2	31
	AA5890	FS-3	31
	AA5891	AD-1	31
	AA5892	AD-2	31
	AA5893	AD-3	31
	AA5894	FS-1 QC	31
	AA5895	FS-1 QC	31
EGG23609	AA6414	FS-6	31
	AA6415	AD-6	31
	AA6416	FS-5	31
	AA6417	AD-5	31
	AA6418	AD-5	31
	AA6419	AD-5	31
	AA6445	BS-1	31
EGG23610	AA6451	ENT 5	01
	AA6457	ENT 6	01
	AA6460	POTW	01
	AA6464	CW	01
	AA6470	WB1	01
EGG23612	AA6487	XAD Blank	61
	AA6488	VB-5-XAD	61
	AA6489	VB-5-PW	12
	AA6490	VB-5-C	12
	AA6491	VB-6-XAD	61
	AA6492	VB-6-PW	12
	AA6493	VB-6-C	12
	AA6512	VB-5-F	63
	AA6513	VB-6-F	63
	AA6814	T Blk 7,1, ReagentBlk	12

SAM. TYPE - 01=WATER, 31=SOIL, 12,61,63=STACK COMPONENTS

Polynuclear Aromatic Hydrocarbons Analysis Data Summary

EGG 23550

Samples AA5912 (FS-1), AA5913 (FS-2), AA5918 (FS-1 QC) and AA5919 (FS-1 QC) were filtered using an 0.45 μ syringe filter before injection onto the HPLC column. Due to the matrix of the samples they were prepped and concentrated to approximately five milliliters in acetone. They were then brought to a 10 ml volume using HPLC grade acetonitrile. Samples AA5913, AA5918, and AA5919 could be injected on column at no lower a concentration than one to ten milliliters. This plus the initial high volume of extract multiplied the detection limit by a factor of one hundred.

These samples were also calculated on a wet weight basis.

EGG 23609

Samples AA6432 (FS-6) and AA6434 (FS-5) could be injected at no lower a dilution than one to one hundred due to matrix problems. The samples contained an "impurity" which adhered to the HPLC column and required prolonged organic solvent flushes to remove it, although even after subsequent removal and reconditioning, column efficiency was diminished. At this dilution the problem was not so severe.

This high dilution combined with the larger extract volume (10 ml) raised the detection limit by a factor of one thousand.

concentrated to a volume of 1.0ml with a K-D apparatus. The extract was cleaned up using a micro alumina column, solvent exchanged into hexane, and concentrated back to 1.0ml.

Low Concentration Soil - A 30 gram portion of sample was mixed with 30 grams of anhydrous sodium sulfate in a beaker. The sample was spiked with surrogate standards and triple extracted with 1:1 methylene chloride/acetone using an ultrasonic probe. The extracts were filtered, combined and concentrated to a volume of 10ml with a K-D apparatus. The 10ml extract was split into two fractions. One fraction (9.5ml) was concentrated to a volume of .95ml for GC/MS analysis of BNA's. The other fraction (0.5ml) was solvent exchanged into hexane, cleaned up using a micro alumina column, brought to a volume of 1.0ml, and analyzed by GC/EC for pesticides/PCB's.

Medium Concentration Soil - A 1.0 gram portion of sample was mixed with 2.0 grams of anhydrous sodium sulfate in a beaker. The sample was spiked with surrogate standard and extracted with Hexane using an ultrasonic probe. The extract were filtered through glass wool and 1.0 ml was concentrated to a volume of 0.5 ml using nitrogen. 0.5ml of Acetone was added and the extract was then cleaned up using a micro alumina column, solvent exchanged into hexane, and concentrated to a volume of 1.0ml.

Sample Analysis

GC/MS Analysis of Volatiles - The samples were analyzed by purge and trap GC/MS in accordance with the EPA CLP Statement of Work, 7/85 revision. The column used for this analysis was a 6 ft x 4mm I.D. glass column packed with 1% SP-1000 on 60/80 mesh Carbopack B. The column was interfaced to the ion source by a glass jet separator. The ion source was operated in the EI mode with an electron energy of 70eV. The quadrupole filter was scanned from 35 to 300 amu in 2.0 seconds. Prior to sample analysis, the system was tuned to meet EPA criteria for a 50ng injection of BFB. The tuning was checked every 12 hour shift. An initial five-point calibration was run and the mean response factor (RF) and percent relative standard deviation (%RSD) calculated for each compound. The system performance check compounds (SPCC's) had mean RF's > 0.300 (0.250 for Bromoform). The calibration check compounds (CCC's) had %RSD's < 30%. A continuing calibration standard was analyzed every 12 hour shift. The SPCC's had RF's > 0.300 (0.250 for Bromoform) and the CCC's had a percent difference (%D) of < 25%.

GC/MS Analysis of Extractables (Base/Neutrals and Acids) - The sample extracts were analyzed by FSCC-GC/MS in accordance with the EPA CLP Statement of Work, 7/85 revision. The column used for this analysis was a 30m DB-5 fused silica capillary column with a 0.32mm I.D. and 1.0 micron film thickness. The column was connected directly to the ion source. The ion source was operated in the EI mode with an electron energy of 70eV. The quadrupole filter was scanned from 35 to 300 amu in 1.0 seconds. Prior to sample analysis, the system was tuned to meet EPA criteria for a 50ng injection of DFTPP. The tuning was checked every 12 hour shift. An initial five-point calibration was run and the mean response factor (RF) and percent relative standard deviation (%RSD) calculated for each compound. The system performance check compounds (SPCC's) had mean RF's > 0.050. The calibration check compounds (CCC's) had %RSD's < 30%. A continuing calibration standard was analyzed every 12 hour shift. The SPCC's had RF's > 0.050 and the CCC's had a percent difference (%D) of < 25%.

GC/ECD Analysis of Pesticides/PCB's - The sample extracts were analyzed by GC/ECD in accordance with the EPA CLP Statement of Work, 7/85 revision. The columns used in this analysis were a 6 ft x 4 mm I.D. glass column packed with

1.5% SP-2250/1.95% SP-2401 on 100/120 mesh Supelcoport and a 6 ft x 2 mm I.D. glass column packed with 3% OV-1 on 100/120 mesh Supelcoport. The gas chromatograph was equipped with a NI-63 electron capture detector. Linearity was checked at the beginning of each 72 hour analytical sequence. If the column was being used for quantitation all linearity requirements were met before analysis of sample extracts. Calibration standards of all compounds to be identified, quantitated, and/or confirmed were analyzed after the linearity standards. Degradation was checked by calculating the percent breakdown of Endrin/4,4'-DDT. Degradation did not exceed 20% for Endrin or 4,4'-DDT. A calibration check standard and degradation check standard were alternately run after every 5 samples and at the end of the analytical sequence. The calibration factor for each standard did not exceed 15% for a quantitation run or 20% for a confirmation run. If any calibration criteria was not met the laboratory reanalyzed all samples following the standard that exceeded the criteria.

Herbicides - 2,4-Dichlorophenoxyacetic acid (2,4-D), Total Salts and Esters and 2,4,5-Trichlorophenoxyacetic acid (2,4,5-T), Total Salts and Esters

Sample Preparation

Soil - Fifty grams of sample was acidified with HCl to a pH of 2. The sample was then triple extracted with 1:4 mixture of acetone/diethyl ether. The extract was hydrolyzed with potassium hydroxide and extraneous organic material was removed with a solvent wash. The extract was then concentrated, methylated, and analyzed by GC/ECD for the free acids of 2,4-D and 2,4,5-T as their methyl esters.

Water - One liter of sample was acidified with HCl to a pH of 2. The sample was then triple extracted with diethyl ether. The extract was hydrolyzed with potassium hydroxide and extraneous organic material was removed with a solvent wash. The extract was then concentrated, methylated, and analyzed by GC/ECD for the free acids of 2,4-D and 2,4,5-T as their methyl esters.

Sample Analysis

GC/ECD Analysis Of 2,4-D and 2,4,5-T - The sample extracts were analyzed by GC/ECD in accordance with the EPA SW-846 method 8150. The column used in this analysis was a 6 ft x 4 mm I.D. glass column packed with 1.5% SP-2250/1.95% SP-2401 on 100/120 mesh Supelcoport. The gas chromatograph was equipped with a NI-63 electron capture detector. The GC was initially calibrated using a three point standard curve. The calibration curve was checked daily by the analysis of one or more calibration standards. If the predicted response was > +/- 10% corrective action was taken before sample analysis began.

Polynuclear Aromatic Hydrocarbons

Sample Preparation

Low Concentration Water - Approximately 1000ml (1 liter) of the sample was transferred into a 2 L separatory funnel. The sample was triple extracted with methylene chloride. The resulting extracts were filtered through conditioned sodium sulfate and concentrated to a volume of 1.0ml with a K-D apparatus. The extract was solvent exchanged into acetonitrile and concentrated back to 1.0ml.

Soil - 10 grams of soil was extracted with methylene chloride in a soxhlet extractor for 24 hrs. The resulting extracts was filtered through conditioned sodium sulfate and concentrated to a volume of 1.0ml with a K-D apparatus. The extract was solvent exchanged into acetonitrile and concentrated back to 1.0ml.

Sample Analysis

HPLC Analysis of Polynuclear Aromatic Hydrocarbons - The sample extracts were analyzed by HPLC in accordance with the EPA SW-846 method 8310. The column used in this analysis was a Supelco LC-PAH 25 cm x 4.6 mm I.D. column plus a LC-18 guard column 2 cm x 4.6 mm (5 u). The liquid chromatograph was equipped with a variable UV detector and a fluorescence spectrophotometric detector. The HPLC was initially calibrated using a three point standard curve. Linearity was checked at the beginning of each day. A check standard and a check solvent blank was alternated after every five samples. Column calibration was performed by running a 3-point calibration for each compound. A mean response and % relative standard deviation was calculated for each compound.

Inorganics Analysis

Metals

Sample Preparation

Water (Furnace Digestion) - 1.0ml of (1:1) HNO₃ and 2.0ml of 30% H₂O₂ was added to 100ml of the sample. The mixture was heated for 2 hrs at 95 deg C or until the volume was reduced to between 25 and 50 ml. The sample was cooled and brought back up to 100ml with distilled deionized water.

Water (ICP/Flame AA Digestion) - 2.0ml of (1:1) HNO₃ and 10ml of (1:1) HCl was added to 100ml of the sample. The mixture was heated for 2 hrs at 95 deg C or until the volume was reduced to between 25 and 50 ml. The sample was cooled and brought back up to 100ml with distilled deionized water.

Soil - 1.0 grams of sample was refluxed for 10 minutes with 10ml of HNO₃ (1:1). 5 ml of concentrated HNO₃ was added and the sample was refluxed for an additional 30 minutes. After cooling, 2ml of water and 3 to 10 ml of 30% H₂O₂ was added. The sample was warmed until the reaction was complete. For ICP and Sb 5 ml of HCl (1:1) and 10ml of water was added and the mixture was refluxed for an additional 10 minutes. For furnace AA the sample was reduced to 2ml, 10ml of water was added, and the mixture was heated. The sample was cooled, filtered, and diluted up to 200ml.

Sample Analysis

Analysis of Metals - The sample extracts were analyzed in accordance with the EPA CLP Statement of Work, 7/85 revision. The SOW provides for the determination of metals by inductively coupled argon plasma (ICP), graphite furnace atomic adsorption (GFAAS), and the cold vapor atomic adsorption technique for mercury (AV). Alternatively, flame atomic adsorption methods (AA) may be substituted for ICP. Calibration requires the preparation of a standard curve, one standard of which must be at the contract required detection limit (CRDL), except in the case of mercury. For metals analysis, no fewer than three non-zero standards

were used to generate the curve. For GFAAS and AV, each standard was analyzed at least three times. Standard reference material, used as initial calibration verification standards (ICVS), were used to verify that the standard curve had been developed accurately. Calibration for ICP utilizes one non-zero standard for each element plus the calibration blank. A standard designed to monitor potential interferences was analyzed as part of the verification process. For GFAAS, AA and AV, the samples were analyzed in duplicate. The standard addition method was used for GFAAS. The continuing calibration verification standard (CCVS) was analyzed after every fifth sample and was preceded by a calibration blank analysis. Duplicate injection results must agree within 20% rsd or the sample is reanalyzed once. Single standard addition recovery factors (RF) for GFAAS must fall within 85% - 115% or the sample was analyzed by the method of standard addition.

Cyanide

The samples were analyzed for cyanide in accordance with the EPA CLP Statement of Work, 7/85 revision. Cyanide as HCN was released from cyanide complexes in the sample by means of a reflux-distillation procedure and absorbed in a scrubber containing sodium hydroxide solution. The cyanide ion in the absorbing solution was then determined colorimetrically.

Chloride

The samples were analyzed for Chloride by EPA Method 325.3 (Titrimetric, Mercuric Nitrate). The acidified sample was titrated with mercuric nitrate in the presence of mixed diphenylcarbazone-bromophenol blue indicator. The end point of the titration is the formation of the blue-violet mercury diphenylcarbazone complex.

Sulfides

The samples were analyzed in accordance with EPA SW-846 method 9030. A 1-2 gram portion of the sample was diluted with 200ml of distilled deionized water. Excess iodine was added to the sample and back-titrated with sodium thiosulfate.

Biochemical Oxygen Demand

The samples were analyzed for BOD in accordance with EPA method 405.1. The original sample and serial dilutions were incubated for 5 days at 20 deg C in the dark. The dissolved oxygen concentration was measured at the beginning and end of the incubation period. The reduction in dissolved oxygen yields a measure of the biochemical oxygen demand.

Chemical Oxygen Demand

The samples were analyzed for COD in accordance with EPA method 410.2. The organic and oxidizable substances in the sample were oxidized by potassium dichromate solution in 50% (by volume) sulfuric acid solution. The excess dichromate was titrated with standard ferrous ammonium sulfate using orthophenanthroline ferrous complex (ferroin) as an indicator.

pH

The pH of the samples was determined electrometrically in accordance with EPA method 150.1. Water samples were measured directly with a glass pH electrode. Soil samples were mixed 1:1 with distilled deionized water, stirred for 1hr and measured with a glass pH electrode.

Appendix T, Exhibit 2

Summary of Methods

Summary of Methods

Organics Analysis

Sample Preparation

Volatiles

Low Concentration Water Samples - 5.0ml of the sample (or dilution of the sample) was spiked with internal standards and surrogates and introduced into the purge and trap device.

VOST Tubes - Tenax and Tenax/charcoal VOST tubes were spiked with internal standards and surrogates then thermally desorbed directly into the purging tube of the purge and trap device.

Tekmar LSC-2 Purge and Trap Sample Concentration - The sample was purged with helium for 12 minutes at a temperature of 40 deg C. The volatile components transferred to the vapor phase were collected on a sorbent column. At the end of the 12 minute purge cycle, the sorbent column was rapidly heated to 180 deg C and backflushed into the GC.

Extractables (Base/Neutrals and Acids)

Low Concentration Water - Approximately 1000ml (1 liter) of the sample was transferred into a 2 L separatory funnel. The sample was spiked with the surrogate standard solution and the pH was adjusted to > 11 with 10N sodium hydroxide. The sample was triple extracted with methylene chloride and the extracts were combined and labeled as the Base/Neutral fraction. The sample was again adjusted to a pH of < 2 with sulfuric acid (1 + 1) and triple extracted with methylene chloride. The extracts were combined and labeled as the Acid fraction. The resulting extracts were filtered through conditioned sodium sulfate and concentrated to a volume of 1.0ml with a K-D apparatus.

Low Concentration Soil - A 30 gram portion of sample was mixed with 30 grams of anhydrous sodium sulfate in a beaker. The sample was spiked with surrogate standards and triple extracted with 1:1 methylene chloride/acetone using an ultrasonic probe. The extracts were filtered, combined and concentrated to a volume of 10ml with a K-D apparatus. The 10ml extract was split into two fractions. One fraction (9.5ml) was concentrated to a volume of .95ml for GC/MS analysis of BNA's. The other fraction (0.5ml) was solvent exchanged into hexane, cleaned up using a micro alumina column, brought to a volume of 1.0ml, and analyzed by GC/EC for pesticides/PCB's.

Medium Concentration Soil - A 1.0 gram portion of sample was mixed with 2.0 grams of anhydrous sodium sulfate in a beaker. The sample was spiked with surrogate standards and extracted with methylene chloride using an ultrasonic probe. The extract were filtered and 5.0ml was concentrated to a volume of 1.0 ml with a K-D apparatus.

Pesticides/PCB's

Low Concentration Water - Approximately 1000ml (1 liter) of the sample was transferred into a 2 L separatory funnel. The sample was spiked with the surrogate standard solution and triple extracted with methylene chloride. The resulting extracts were filtered through conditioned sodium sulfate and

Polynuclear Aromatic Hydrocarbon Analysis Data Summary

Laboratory ID: ITAS Knoxville
Case: EG&G
Concentration Units: ng/g

PAH Data Summary
Feed Stock Samples

Analyte	FS-1	FS-2	FS-3	FS-5	FS-6
BENZO(a)ANTHRACENE	2.000 U	40.000 U	40.000 U	35.000 U	35.000 U
BENZO(a)PYRENE	2.000	40.000 U	40.000 U	45.000 U	45.000 U
BENZO(b)FLUORANTHENE	2.900	44.000	40.000 U	50.000	29.000 U
CHRYSENE	1.000 U	44.000 U	40.000 U	19.000 U	19.000 U
DIBENZO(a,h)ANTHRACENE	1.000 U	40.000 U	40.000 U	110.000 U	110.000 U
FLUORANTHENE	9.100	110.000	40.000 U	100.000	84.000 U
INDENO(1,2,3-cd)PYRENE	3.000 U	40.000 U	40.000 U	48.000 U	48.000 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EG&G
Concentration Units: ng/g

PAH Data Summary
Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6	BS-1
BENZO(a)ANTHRACENE	2.000 U	2.000 U	2.000 U	1.000 U	1.200	4.000 U
BENZO(a)PYRENE	2.000 U	2.000 U	2.000 U	1.000 U	1.000 U	1.100
BENZO(b)FLUORANTHENE	2.000 U	2.000 U	2.000 U	1.000 U	1.000 U	9.800
CHRYSENE	1.700	1.000 U	2.100	1.000 U	1.000 U	2.000 U
DIBENZO(a,h)ANTHRACENE	3.000 U	7.600	6.900	2.100 U	3.400	2.100
FLUORANTHENE	2.300	2.700	2.100	3.700	6.300	4.900
INDENO(1,2,3-cd)PYRENE	3.000 U	3.000 U	3.000 U	1.000 U	1.000 U	1.000 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EGIG
Concentration Units: ug/L

PAH Data Summary
Water Samples

Analyte	ENT-B	ENT-1	ENT-2	ENT-5	ENT-6	POTW	CW	WB1
BENZO(a)ANTHRACENE	0.180	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
BENZO(a)PYRENE	0.210	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U
BENZO(b)FLUORANTHENE	0.160	0.018 U	0.018 U	0.027 U	0.018 U	0.018 U	0.018 U	0.018 U
CHRYSENE	0.290	0.150 U	0.150 U	0.150 U	0.150 U	0.150 U	0.150 U	0.150 U
DIBENZO(a,h)ANTHRACENE	0.220	0.073	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
FLUORANTHENE	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U	0.210 U
INDENO(1,2,3-cd)PYRENE	0.160	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EG&G
Concentration Units: ug

PAH Data Summary
Stack Samples

Analyte	VB-1-XAD	VB-2-XAD	VB-3-XAD	VB-5-XAD	VB-6-XAD	XAD Blk	TBlk 791
BENZO(a)ANTHRACENE	490.000	2400.000	890.000	730.000	870.000	60.000 U	60.000 U
BENZO(a)PYRENE	1300.000	6400.000	5100.000	12000.00	2000.000	4700.000	97.000
BENZO(b)FLUORANTHENE	4400.000	8800.000	7000.000	16000.00	4300.000	5300.000	4240.000
CHRYSENE	190.000	2000.000	1000.000	1600.000	1600.000	310.000	30.000 U
DIBENZO(a,h)ANTHRACENE	220.000 U	6000.000	2500.000	4800.000	3700.000	220.000 U	400.000 U
FLUORANTHENE	3100.000	2300.000	1100.000	1400.000	1100.000	110.000 U	110.000 U
INDENO(1,2,3-cd)PYRENE	4400.000	2700.000	3100.000	19000.00	5600.000	9400.000	460.000

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.



ANALYTICAL SERVICES

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00026



CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23549
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Test 1 Stack Gas Composite Extract
Laboratory Number: AA5844
Concentration units are total ug

Benzo(a)anthracene	490
Benzo(b)fluoranthene	4,400
Benzo(a)pyrene	1,300
Chrysene	190
Dibenzo(a,h)anthracene	ND (220)
Fluoranthene	3,100
Indeno(1,2,3-cd)pyrene	4,400

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22-23/86
Date of Analysis: 1/9-10/87, 1/16/87

Approved by

Assistant Laboratory Manager

Title



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93-9-89



ANALYTICAL SERVICES

00031



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CERTIFICATE OF ANALYSIS

TO: EGG Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23549
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Test 2 Stack Gas Composite Extract
Laboratory Number: AA5845
Concentration, units are total µg

Benzo(a)anthracene	2,400
Benzo(b)fluoranthene	8,800
Benzo(a)pyrene	6,400
Chrysene	2,000
Dibenzo(a,h)anthracene	6,000
Fluoranthene	2,300
Indeno(1,2,3-cd)pyrene	2,700

Date of Extraction: 12/22-23/86
Date of Analysis: 1/9-10/87, 1/16/87

Approved by *Robert M. Wagner*
Assistant Laboratory Manager

Title



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92-9-45



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00035



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TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE: EGG 23549
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF MCBC Full Scale Demo - 12/86

Sample Description: Test 3 Stack Gas Composite Extract
Laboratory Number: AA5846
Concentration units are total ug

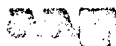
Benzo(a)anthracene	890
Benzo(b)fluoranthene	7,000
Benzo(a)pyrene	5,100
Chrysene	1,000
Dibenzo(a,h)anthracene	2,500
Fluoranthene	1,100
Indeno(1,2,3-cd)pyrene	3,100

Date of Extraction: 12/22-23/86
Date of Analysis: 1/9-10/87, 1/16/87

Approved by

Assistant Laboratory Manager

Title



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57-8-83



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CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23612
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Test 6 Stack Gas Composite Extract
Laboratory Number: AA6513
Concentration units are total ug

Benzo(a)anthracene	870
Benzo(b)fluoranthene	4,300
Benzo(a)pyrene	2,000
Chrysene	1,600
Dibenzo(a,h)anthracene	3,700
Fluoranthene	1,100
Indeno(1,2,3-cd)pyrene	5,500

Date of Extraction: 12/22-23/86
Date of Analysis: 1/10/87, 1/14-15/87

Accepted by

Assistant Laboratory Manager



Accredited by the American Chemical Society, Laboratory Accreditation in the chemical
and allied fields, as listed in the current AAAS Directory of Accredited Laboratories

10-1-84



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CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23548
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

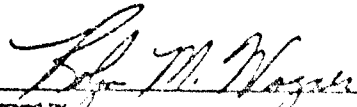
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: ENT-B (Water)
Laboratory Number: AA5837
Concentration units are ug/liter (ppb)

Benzo(a)anthracene	0.18
Benzo(b)fluoranthene	0.16
Benzo(a)pyrene	0.21
Chrysene	0.29
Dibenzo(a,h)anthracene	0.22
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	0.16

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86


Approved by Assistant Laboratory Manager

Title



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ANALYTICAL SERVICES

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TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23548
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: ENT-1 (Water)
Laboratory Number: AA5838
Concentration units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	0.073
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86

Approved by

Assistant Laboratory Manager



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23548
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

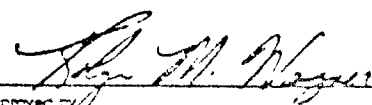
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: ENT-2 (Water)
Laboratory Number: AA5839
Concentration units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86


Approved by _____
Assistant Laboratory Manager
Title _____



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ANALYTICAL SERVICES

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CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: ENT5 (Water)
Laboratory Number: AA6454
Concentration, units are ug/liter (ppb)

Benzo(a)anthracene	0.013
Benzo(b)fluoranthene	ND (0.027)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87

Approved by

Assistant Laboratory Manager

Title



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TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23610
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCRC Full Scale Demo - 12/86

Sample Description: ENT6 (Water)
Laboratory Number: AA6457
Concentration, units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87

Approved by

Assistant Laboratory Manager

Title



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TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

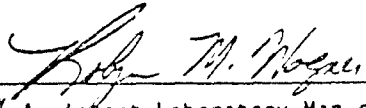
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: WB1 (Water)
Laboratory Number: AA6473
Concentration, units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87


Approved by Assistant Laboratory Manager

Title



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TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: POTW (Water)
Laboratory Number: AA6460
Concentration, units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87

Approved by

Assistant Laboratory Manager

Title



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33-9-85

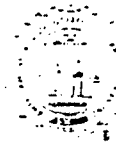


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00103



CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE EGG 23610
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: CW (Water)
Laboratory Number: AA6467
Concentration, units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/85
Date of Analysis: 1/13-14/87

Approved by

Assistant Laboratory Manager

Title



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33-9-85

10000

Case No. E66

Region

Contractor

ITAS-Knoxville TN

Contract No.

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Comments:

FORM IV

7185

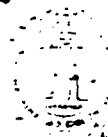


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00122



CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23612
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NC8C Full Scale Demo - 12/86

Sample Description: XAD Blank
Laboratory Number: AA6487
Concentration units are total ug

Benzo(a)anthracene	ND (60.)
Benzo(b)fluoranthene	5,300
Benzo(a)pyrene	4,700
Chrysene	310
Dibenzo(a,h)anthracene	ND (220)
Fluoranthene	ND (110)
Indeno(1,2,3-cd)pyrene	9,400

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22-23/86
Date of Analysis: 1/10/87, 1/14-15/87



Approved by

Assistant Laboratory Manager

Title



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00127



CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23612
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

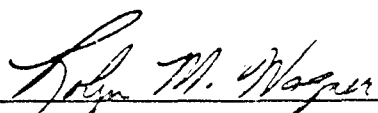
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: T-Blank 791, Reagent Blank
Laboratory Number: AA6814
Concentration, units are total ug

Benzo(a)anthracene	ND (60.)
Benzo(b)fluoranthene	240
Benzo(a)pyrene	97
Chrysene	ND (30.)
Dibenzo(a,h)anthracene	ND (400)
Fluoranthene	ND (110)
Indeno(1,2,3-cd)pyrene	460

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22-23/86
Date of Analysis: 1/10/87, 1/14-15/87


Approved by _____
Assistant Laboratory Manager
Title _____



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00196



CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23548
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

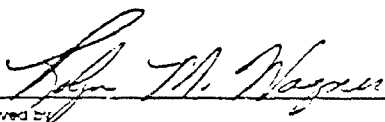
Sample Description: Method Blank 062281

Concentration units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86


Approved by: _____
Assistant Laboratory Manager
Title: _____



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93-9-45



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00200



CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Method Blank 0650(B1)

Concentration units are total ug

Benzo(a)anthracene	ND (0.020)
Benzo(b)fluoranthene	ND (0.020)
Benzo(a)pyrene	ND (0.020)
Chrysene	ND (0.010)
Dibenzo(a,h)anthracene	ND (0.010)
Fluoranthene	ND (0.020)
Indeno(1,2,3-cd)pyrene	ND (0.030)

ND = Not detected at the quantitation limit listed in parenthesis.

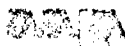
Date of Extraction: 12/16/86

Date of Analysis: 1/8-13/87

APPROVED BY

[Signature]
Assistant Laboratory Manager

THE



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00204

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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23609
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCSC Full Scale Demo - 12/86

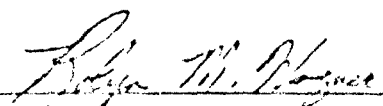
Sample Description: Method Blank 0718(81)

Concentration units are total ug

Benzo(a)anthracene	ND (0.010)
Benzo(b)fluoranthene	ND (0.010)
Benzo(a)pyrene	ND (0.010)
Chrysene	ND (0.010)
Dibenzo(a,h)anthracene	ND (0.021)
Fluoranthene	ND (0.020)
Indeno(1,2,3-cd)pyrene	ND (0.010)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87



APPROVED BY Assistant Laboratory Manager

THE



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TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23610
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

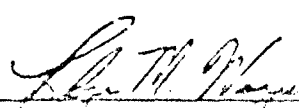
Sample Description: Method Blank 0720(81) (Water)

Concentration units are ug/liter (ppb)

Benzo(a)anthracene	ND (0.013)
Benzo(b)fluoranthene	ND (0.018)
Benzo(a)pyrene	ND (0.023)
Chrysene	ND (0.15)
Dibenzo(a,h)anthracene	ND (0.030)
Fluoranthene	ND (0.21)
Indeno(1,2,3-cd)pyrene	ND (0.043)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87


Approved by Assistant Laboratory Manager

Title



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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-1 QC, PAH Matrix Spike (Soil)
Laboratory Number: AA5918
Concentration, units are ug/kg (ppb) on a wet weight basis

QA/QC - Matrix Spike Recovery Data

	<u>Amount Analyzed in Sample</u>	<u>Spike Amount Added</u>	<u>Theoretical Concentration Sample + Spike</u>	<u>Analyzed Conc. of Sample + Spike</u>	<u>% Recovery</u>
Benzo(a)anthracene	ND (2.0)	990	990	780	79
Benzo(b)fluoranthene	2.9	990	990	700	70
Benzo(a)pyrene	2.0	990	990	750	76
Chrysene	ND (1.0)	990	990	800	81
Dibenzo(a,h)anthracene	ND (1.0)	990	990	630	64
Fluoranthene	9.1	990	1 000	1,100	114
Indeno(1,2,3-cd)pyrene	ND (3.0)	990	990	740	74

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/15/86
Date of Analysis: 1/8-13/87
Percent Moisture: 9.21

Approved by

Robert M. Wagner

Assistant Laboratory Manager

Title



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TO: EG&G Idaho, Inc.
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DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-1 QC, PAH Matrix Spike Duplicate (Soil)
Laboratory Number: AA5919
Concentration units are ug/kg (ppb) on a wet weight basis

QA/QC - Matrix Spike Duplicate Recovery Data

	Amount Analyzed in Sample	+	Spike Amount Added	=	Theoretical Concentration Sample + Spike	Analyzed Conc. of Sample + Spike	% Recovery
Benzo(a)anthracene	ND (2.0)		990		990	710	72
Benzo(b)fluoranthene	2.9		990		990	820	83
Benzo(a)pyrene	2.0		990		990	830	84
Chrysene	ND (1.0)		990		990	1,600	162
Dibenzo(a,h)anthracene	ND (1.0)		990		990	890	90
Fluoranthene	9.1		990		1,000	850	85
Indeno(1,2,3-cd)pyrene	ND (3.0)		990		990	630	64

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 9.21

Approved by

John M. Wagner

Assistant Laboratory Manager

Title



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TO: EG&G Idaho, Inc.
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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

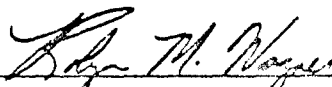
Sample Description: AD-5, PAH Matrix Spike (Ash)
Laboratory Number: AA6436
Concentration, units are ug/kg (ppb) on a wet weight basis

QA/QC - Matrix Spike Recovery Data

	Amount Analyzed in Sample	+	Spike Amount Added	=	Theoretical Concentration Sample + Spike	Analyzed Conc. of Sample + Spike	% Recovery
Benzo(a)anthracene	ND (1.0)		980		980	560	57
Benzo(b)fluoranthene	ND (1.0)		980		980	540	55
Benzo(a)pyrene	ND (1.0)		980		980	710	73
Chrysene	ND (1.0)		980		980	500	51
Dibenzo(a,h)anthracene	ND (2.1)		980		980	470	48
Fluoranthene	3.7		980		980	670	68
Indeno(1,2,3-cd)pyrene	ND (1.0)		980		980	550	57

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 25.89


Approved by _____
Assistant Laboratory Manager
Title _____



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DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: AD-5, PAH Matrix Spike Duplicate (Ash)
Laboratory Number: AA6437
Concentration units are ug/kg (ppb) on a wet weight basis

QA/QC - Matrix Spike Duplicate Recovery Data

	Amount Analyzed in Sample	+	Spike Amount Added	=	Theoretical Concentration Sample + Spike	Analyzed Conc. of Sample + Spike	% Recovery
Benzo(a)anthracene	ND (1.0)		970		970	490	50
Benzo(b)fluoranthene	ND (1.0)		970		970	440	45
Benzo(a)pyrene	ND (1.0)		970		970	670	68
Chrysene	ND (1.0)		970		970	440	45
Dibenzo(a,h)anthracene	ND (2.1)		970		970	470	48
Fluoranthene	3.7		970		970	580	59
Indeno(1,2,3-cd)pyrene	ND (1.0)		970		970	550	56

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 25.89

Approved by *John M. Wagner*
Assistant Laboratory Manager

Title



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TO: EG&G Idaho, Inc.
ATTN: Alan Propp
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Idaho Falls, ID 83415

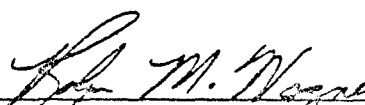
DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23548
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: QA/QC Summary - Blank Spike (Water)
Laboratory Number: 0623 (S1)
Concentration, units are ug/liter (ppb)

	<u>True Spike Concentration</u>	<u>Recovered Spike Concentration</u>	<u>% Recovery</u>
Benzo(a)anthracene	10.	9.7	97
Benzo(b)fluoranthene	10.	10.	102
Benzo(a)pyrene	10.	8.8	88
Chrysene	10.	10.	105
Dibenzo(a,h)anthracene	10.	13	133
Fluoranthene	10.	8.0	80
Indeno(1,2,3-cd)pyrene	10.	10.	101

Date of Extraction: 12/12/86
Date of Analysis: 12/16-18/86, 12/31/86


Approved by _____
Assistant Laboratory Manager
Title _____



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ATTN: Alan Propp
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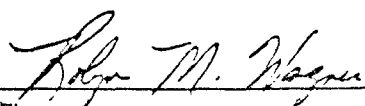
DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: QA/QC Summary - Blank Spike (Solvent)
Laboratory Number: 0651 (S3)
Concentration units are total μg

	<u>True Spike Concentration</u>	<u>Recovered Spike Concentration</u>	<u>% Recovery</u>
Benzo(a)anthracene	10.	6.8	68
Benzo(b)fluoranthene	10.	6.7	67
Benzo(a)pyrene	10.	6.2	62
Chrysene	10.	6.9	69
Dibenzo(a,h)anthracene	10.	6.4	64
Fluoranthene	10.	8.2	82
Indeno(1,2,3-cd)pyrene	10.	6.1	61

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87


Approved by _____
Assistant Laboratory Manager
Title _____



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Idaho Falls, ID 83415

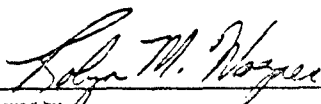
DATE REPORTED January 19, 1987
PROJECT CODE EGG 23609
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NC8C Full Scale Demo - 12/86

Sample Description: QA/QC Summary - Blank Spike (Solvent)
Laboratory Number: 0719 (S1)
Concentration units are total ug

	<u>True Spike Concentration</u>	<u>Recovered Spike Concentration</u>	<u>% Recovery</u>
Benzo(a)anthracene	10.	5.7	57
Benzo(b)fluoranthene	10.	5.4	54
Benzo(a)pyrene	10.	7.3	73
Chrysene	10.	5.3	53
Dibenzo(a,h)anthracene	10.	6.4	64
Fluoranthene	10.	6.4	64
Indeno(1,2,3-cd)pyrene	10.	5.9	59

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87


Approved by Assistant Laboratory Manager
Title _____



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TO: EG&G Idaho, Inc.
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1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: QA/QC Summary - Blank Spike (Water)
Laboratory Number: 00721 (S2)
Concentration units are $\mu\text{g/liter}$ (ppb)

	<u>True Spike Concentration</u>	<u>Recovered Spike Concentration</u>	<u>% Recovery</u>
Benzo(a)anthracene	10.	6.6	66
Benzo(b)fluoranthene	10.	6.9	69
Benzo(a)pyrene	10.	7.6	76
Chrysene	10.	6.9	69
Dibenzo(a,h)anthracene	10.	7.7	77
Fluoranthene	10.	6.8	68
Indeno(1,2,3-cd)pyrene	10.	6.7	67

Date of Extraction: 12/22/86
Date of Analysis: 1/13-14/87

Approved by

Robert M. Wagner
Assistant Laboratory Manager

Title



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ATTN: Alan Propp
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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-1 (Soil)
Laboratory Number: AA5912
Concentration units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (2.0)
Benzo(b)fluoranthene	2.9
Benzo(a)pyrene	2.0
Chrysene	ND (1.0)
Dibenzo(a,h)anthracene	ND (1.0)
Fluoranthene	9.1
Indeno(1,2,3-cd)pyrene	ND (3.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 9.21

Approved by

John M. Nye
Assistant Laboratory Manager

Title



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TO: EG&G Idaho, Inc.
ATTN: Alan Propp
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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

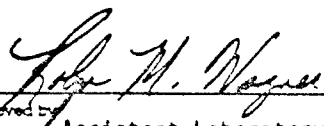
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-2 (Soil)
Laboratory Number: AA5913
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (40.)
Benzo(b)fluoranthene	44
Benzo(a)pyrene	ND (40.)
Chrysene	ND (44)
Dibenzo(a,h)anthracene	ND (40.)
Fluoranthene	110
Indeno(1,2,3-cd)pyrene	ND (40.)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 9.15


Approved by _____
Assistant Laboratory Manager
Title _____



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ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED January 19, 1987
PROJECT CODE EGG 23550
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

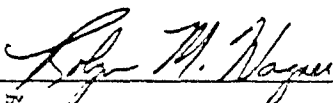
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-3 (Soil)
Laboratory Number: AA5914
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (40.)
Benzo(b)fluoranthene	ND (40.)
Benzo(a)pyrene	ND (40.)
Chrysene	ND (40.)
Dibenzo(a,h)anthracene	ND (40.)
Fluoranthene	ND (40.)
Indeno(1,2,3-cd)pyrene	ND (40.)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 8.50


Approved by _____
Assistant Laboratory Manager
Title _____



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Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE EGG 23609
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

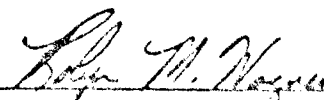
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-5 (Soil)
Laboratory Number: AA6434
Concentration units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (35)
Benzo(b)fluoranthene	50.
Benzo(*)pyrene	ND (45)
Chrysene	ND (19)
Dibenzo(a,h)anthracene	ND (110)
Fluoranthene	100
Indeno(1,2,3-cd)pyrene	ND (48)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/15/87
Percent Moisture: 9.04


Approved by _____
Assistant Laboratory Manager
Title _____



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DATE REPORTED January 19, 1987
PROJECT CODE EGG 23609
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

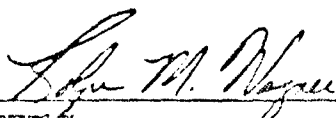
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: FS-6 (Soil)
Laboratory Number: AA6432
Concentration, units are $\mu\text{g/kg}$ (ppb) on a wet weight basis

Benzo(a)anthracene	ND (35)
Benzo(b)fluoranthene	ND (29)
Benzo(a)pyrene	ND (45)
Chrysene	ND (19)
Dibenzo(a,h)anthracene	ND (110)
Fluoranthene	ND (84)
Indeno(1,2,3-cd)pyrene	ND (48)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 8.84



Approved by Assistant Laboratory Manager



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12-8-85



ANALYTICAL SERVICES

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TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

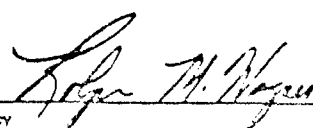
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: AD-1 (Ash)
Laboratory Number: AA5915
Concentration, units are ug/kg (ppb) on a wet weight basis

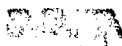
Benzo(a)anthracene	ND (2.0)
Benzo(b)fluoranthene	ND (2.0)
Benzo(a)pyrene	ND (2.0)
Chrysene	1.7
Dibenzo(a,h)anthracene	ND (3.0)
Fluoranthene	2.3
Indeno(1,2,3-cd)pyrene	ND (3.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 18.67


Approved by _____
Assistant Laboratory Manager

Title



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field of testing as listed in the current AALA Directory of Accredited Laboratories

93-9-85



ANALYTICAL SERVICES

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00060



CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

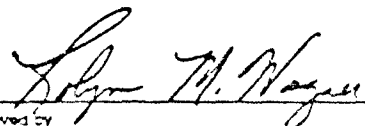
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: AD-2 (Ash)
Laboratory Number: AA5916
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (2.0)
Benzo(b)fluoranthene	ND (2.0)
Benzo(a)pyrene	ND (2.0)
Chrysene	ND (1.0)
Dibenzo(a,h)anthracene	7.6
Fluoranthene	2.7
Indeno(1,2,3-cd)pyrene	ND (3.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 27.68


Approved by _____
Assistant Laboratory Manager
DPA



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93-9-45

00065

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**CERTIFICATE OF ANALYSIS**

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

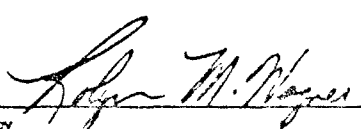
Sample Description: AD-3 (Ash)
Laboratory Number: AA5917
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (2.0)
Benzo(b)fluoranthene	ND (2.0)
Benzo(a)pyrene	ND (2.0)
Chrysene	2.1
Dibenzo(a,h)anthracene	6.9
Fluoranthene	2.1
Indeno(1,2,3-cd)pyrene	ND (3.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/16/86
Date of Analysis: 1/8-13/87
Percent Moisture: 24.48

Approved by


Assistant Laboratory Manager

Title



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13-8-85



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TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

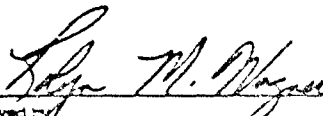
RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: AD-5 (Ash)
Laboratory Number: AA6435
Concentration units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (1.0)
Benzo(b)fluoranthene	ND (1.0)
Benzo(a)pyrene	ND (1.0)
Chrysene	ND (1.0)
Dibenzo(a,h)anthracene	ND (2.1)
Fluoranthene	3.7
Indeno(1,2,3-cd)pyrene	ND (1.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 25.89


Approved by: _____
Assistant Laboratory Manager
Title: _____



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92-9-05



ANALYTICAL SERVICES

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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: AD-6 (Ash)
Laboratory Number: AA6433
Concentration units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	1.2
Benzo(b)fluoranthene	ND (1.0)
Benzo(a)pyrene	ND (1.0)
Chrysene	ND (1.0)
Dibenzo(a,h)anthracene	3.4
Fluoranthene	6.3
Indeno(1,2,3-cd)pyrene	ND (1.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 20.52

Approved by

John M. Wozniak
Assistant Laboratory Manager

Title



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83-9-85



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CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: BS-1 (Soil)
Laboratory Number: AA6448
Concentration, units are ug/kg (ppb) on a wet weight basis

Benzo(a)anthracene	ND (4.0)
Benzo(b)fluoranthene	9.8
Benzo(a)pyrene	1.1
Chrysene	ND (2.0)
Dibenzo(a,h)anthracene	2.1
Fluoranthene	4.9
Indeno(1,2,3-cd)pyrene	ND (1.0)

ND = Not detected at the quantitation limit listed in parenthesis.

Date of Extraction: 12/22/86
Date of Analysis: 1/16/87
Percent Moisture: 9.50

Approved by

Assistant Laboratory Manager

Title



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93-9-85

Base Neutral/Acid Analysis Data Summary

Base Neutral/Acid Analysis Data Summary

Water samples ENT5, ENT6, POTW, CW, WBI, along with WBI matrix spikes were analyzed and found to have low acid surrogate recoveries. These samples were reextracted and reanalyzed with acceptable surrogate results. This data is submitted. The reextraction was outside the usual sample holding time.

Laboratory ID: ITAS Knoxville
Case: EC&G
Concentration Units: ug/kg

Organics Data Summary
Feed Stock Samples

Analyte	FS-1	FS-2	FS-3	FS-5	FS-6
BENZIDINE	5300.0 U	5300.0 U	2600.0 U	2600.0 U	2600.0 U
BIS(2-CHLOROETHOXY)METHANE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
BIS(2-CHLOROISOPROPYL)ETHER	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
3,3'-DICHLOBENZIDINE	1300.0 U	1300.0 U	660.0 U	660.0 U	660.0 U
2,4-DICHLOROPHENOL	660.0 U	220.0 J	230.0 J	330.0 U	210.0 J
2,5-DICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,6-DICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
3,4-DICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	370.0
4,6-DINITRO-O-CRESOL	3200.0 U	3200.0 U	1600.0 U	1600.0 U	1600.0 U
2,4-DINITROPHENOL	3200.0 U	3200.0 U	1600.0 U	1600.0 U	1600.0 U
2,4-DINITROTOLUENE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2-METHYLPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
3-METHYLPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
4-METHYLPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
4-NITROPHENOL	3200.0 U	3200.0 U	1600.0 U	1600.0 U	1600.0 U
N-NITROSODIMETHYLAMINE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
PHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
1,2,3,5-TETRACHLOROBENZENE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
1,2,4,5-TETRACHLOROBENZENE	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,3,4,5-TETRACHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,3,4,6-TETRACHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,3,4-TRICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U
2,4,5-TRICHLOROPHENOL	1600.0	3700.0	3600.0	8800.0	5700.0
2,4,6-TRICHLOROPHENOL	660.0 U	660.0 U	330.0 U	330.0 U	330.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EGAG
Concentration Units: ug/kg

Organics Data Summary
Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6	BS-1
BENZIDINE	2600.0 U	2600.0 U	2600.0 U	2600.0 U	2600.0 U	2600.0 U
BIS(2-CHLOROETHOXY)METHANE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
BIS(2-CHLOROISOPROPYL)ETHER	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
3,3'-DICHLOROBENZIDINE	660.0 U	660.0 U	660.0 U	660.0 U	660.0 U	660.0 U
2,4-DICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,5-DICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,6-DICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
3,4-DICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
4,6-DINITRO-O-CRESOL	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U
2,4-DINITROPHENOL	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U
2,4-DINITROTOLUENE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2-METHYLPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
3-METHYLPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
4-METHYLPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
4-NITROPHENOL	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U	1600.0 U
N-NITROSODIMETHYLAMINE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
PHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
1,2,3,5-TETRACHLOROBENZENE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
1,2,4,5-TETRACHLOROBENZENE	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,3,4,5-TETRACHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,3,4,6-TETRACHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,3,4-TRICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U
2,4,5-TRICHLOROPHENOL	1600.0 U	1600.0 U	1600.0 U	210.0 J	1600.0 U	1600.0 U
2,4,6-TRICHLOROPHENOL	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U	330.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EC&G
Concentration Units: ug/L

Organics Data Summary
Water Samples

Analyte	ENT-B	ENT-1	ENT-2	ENT-5	ENT-6	POTW	WB1	CW
BENZIDINE	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	800.0 U
BIS(2-CHLOROETHOXY)METHANE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
BIS(2-CHLOROISOPROPYL)ETHER	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
3,3'-DICHLOBENZIDINE	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	200.0 U
2,4-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,5-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,6-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
3,4-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
4,6-DINITRO-O-CRESOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	500.0 U
1,4-DINITROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	500.0 U
2,4-DINITROTOLUENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
3-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
4-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
4-NITROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	500.0 U
N-NITROSODIMETHYLAMINE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
PHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
1,2,3,5-TETRACHLOROBENZENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
1,2,4,5-TETRACHLOROBENZENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,3,4,5-TETRACHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,3,4,6-TETRACHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,3,4-TRICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U
2,4,5-TRICHLOROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	500.0 U
2,4,6-TRICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	100.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EG&G
Concentration Units: ug

Organics Data Summary
Stack Samples

Analyte	VB-1-XAD	VB-2-XAD	VB-3-XAD	VB-5-XAD	VB-6-XAD	XAD Blk	TBlk 791
BENZIDINE	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U	80.0 U
BIS(2-CHLOROTHOXYMETHANE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
BIS(2-CHLOROISOPROPYL)ETHER	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
3,3'-DICHLOROBENZIDINE	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
2,4-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,5-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,6-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
3,4-DICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4,6-DINITRO-O-CRESOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
2,4-DINITROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
2,4-DINITROTOLUENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
3-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-METHYLPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
4-NITROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
N-NITROSODIMETHYLAMINE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
PHENOL	50.0	37.0	32.0	28.0	34.0	10.0 U	10.0 U
1,2,3,5-TETRACHLOROBENZENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
1,2,4,5-TETRACHLOROBENZENE	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,3,4,5-TETRACHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,3,4,6-TETRACHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,3,4-TRICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
2,4,5-TRICHLOROPHENOL	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
2,4,6-TRICHLOROPHENOL	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Organics Analysis Data Sheet
(Page 1)

Sample Number
FS-1

AA588805

00118

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG 23550

Lab Sample ID No: AA588805

QC Report No: _____

Sample Matrix: Feed Stock

Contract No: _____

Data Release Authorized By: W.T. Wilson

Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) 7.3

**NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER**

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-8	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
109-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-8	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-3	2-Chloroethylvinyl ether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-13-4	Tetrachloroethane	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
105-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Guidelines

For reporting results to EPA, the following results guidelines are used.
Additional flags or comments explaining results are encouraged. However, the definition of each flag must be exact.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum estimated detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a "1" response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.

- C** This flag applies to compounds for which the identification has been confirmed by GC/MS. Sample concentration should be ≥ 10 ug/l in the final extract should be confirmed by GC/MS.
- d** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable false contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

00119

Laboratory Name ITAS-KNOXVILLE
 Case No EGG 23550

Sample Number
FS-1

Organics Analysis Data Sheet
 (Page 2)

A758805

Semivolatile Compounds

Concentration: Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-15-86Separatory Funnel Extraction ☐ Yes ☒ NADate Analyzed 1-9-87Continuous Liquid-Liquid Extraction ☐ Yes ☒ NAConc/Dil Factor: (0.0303 Kg / 2.0 ml) 0.9266Percent Moisture (Decanted) NA

Dryness Factor

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	660. u
111-44-4	bis(2-Chloroethyl) Ether	
35-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnaphenol	
39533-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methylnaphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
38-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-57-3	2,4-Dimethylnaphenol	✓
65-85-0	Benzoic Acid	3200. u
111-91-1	bis(2-Chloroethoxy) Methane	660. u
120-81-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
37-68-3	Hexachlorocyclopentadiene	
59-50-7	4-Chloro-3-Methylnaphenol	
31-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	✓
98-66-2	2,4,5-Trichlorophenol	new 2-phenol
35-35-4	2,4,5-Trichlorophenol	new 2-phenol
31-58-7	2-Chloronaphthalene	660. u
83-74-4	2-Nitroaniline	3200. u
131-11-3	Dimethyl Phthalate	660. u
223-25-8	Acenaphthylene	660. u
93-59-2	3-Nitroaniline	3200. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	660. u
51-28-5	2,4-Dinitrophenol	3200. u
100-02-7	4-Nitrophenol	3200. u
132-64-9	Dibenzofuran	660. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,5-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenylphenyl ether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	3200. u
534-52-1	4,6-Dinitro-2-Methylnaphenol	3200. u
85-30-6	N-Nitrosodiphenylamine (1)	660. u
101-55-3	4-Bromophenylphenyl ether	
119-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	3200. u
85-01-8	Phenanthrene	660. u
120-12-7	Anthracene	660. u
84-74-2	Di-n-Butylphthalate	2300. B
206-44-0	Fluoranthene	660. u
129-00-0	F	660. u
95-68-7	Buylbenzylphthalate	2000.
91-34-1	3,3'-Dichlorobenzidine	1300. u
56-55-3	Benzo(a)Anthracene	660. u
117-81-7	bis(2-Ethylhexyl)phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	✓
205-99-2	Benzo(b)Fluoranthene	70. J
207-08-3	Benzo(k)Fluoranthene	660. u
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(h,i)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23550

Sample Number
FS-1

Organics Analysis Data Sheet
(Page 3)

00121

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-15-86
Date Analyzed 12-20-86
Conc Dil Factor 1, 45
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	170.00
12575-17-2	Aroclor-1216	96.00
11104-28-2	Aroclor-1221	96.00
11141-18-5	Aroclor-1232	96.00
53489-21-9	Aroclor-1242	96.00
12572-23-6	Aroclor-1248	96.00
11097-39-1	Aroclor-1254	170.00
11096-82-5	Aroclor-1260	170.00

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.03g V_i 2.0000ul V_t 2ul

Organics Analysis Data Sheet
(Page 1)

Sample Number

FS-2

AA5889

00171

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA5889
Sample Matrix: Feed Stock
Data Release Authorized By: W.T. Wilson

Case No: EGG 23550
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-84

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) 8.7

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-47-8	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully descriptive and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLECase No. EGG 23550

Sample Number

AS-2Organics Analysis Data Sheet
(Page 2)

AA5889

00172

Semivolatile Compounds

Concentration: Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared: 12-15-86Separatory Funnel Extraction ☐ Yes ☒ NoDate Analyzed: 1-9-87Continuous Liquid-Liquid Extraction ☐ Yes ☒ NoConc./Dil Factor: (0.03005 L / 2.0 ml) 0.9135 Dryness FactorPercent Moisture (Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	660. u
111-44-4	bis(2-Chloroethyl) Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39633-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methoxyphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isochlorane	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	3200. u
111-31-1	bis(2-Chloroethoxy)Methane	660. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-5	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	✓
88-06-2	2,4,6-Trichlorophenol	660 u 3200
95-95-4	2,4,5-Trichlorophenol	3700 2000 u
91-58-7	2-Chloronaphthalene	660. u
88-74-4	2-Nitroaniline	3200. u
131-11-3	Dimethyl Phthalate	660. u
208-95-9	Acenaphthylene	660. u
99-09-2	3-Nitroaniline	3200. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	660. u
51-28-5	2,4-Dinitrophenol	3200. u
100-02-7	4-Nitrophenol	3200. u
132-64-9	Dibenzofuran	660. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,5-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorodiphenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	3200. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	3200. u
96-30-6	N-Nitrosodiphenylamine (1)	660. u
101-53-3	4-Bromodiphenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	3200. u
85-01-8	Phenanthrene	660. u
120-12-7	Anthracene	660. u
84-74-2	Di-n-Butylphthalate	3900. u
206-44-0	Fluoranthene	660. u
129-00-0	Pyrene	75. J
85-68-7	Butylbenzylphthalate	1500.
91-94-1	3,3'-Dichlorobenzidine	1300. u
56-55-3	Benz[a]Anthracene	660. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	✓
205-99-2	Benzobifluoranthene	100. J
207-08-9	Benzokifluoranthene	88. J
50-32-8	Benz[a]Pyrene	660. u
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benz[ghi]Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23550

Sample Number
FS-2

Organics Analysis Data Sheet
(Page 3)

00174

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared: 12-15-86
Date Analyzed 12-20-86 1-16-87
Conc Dil Factor 1/2, 1/10
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	180.04
12674-11-2	Aroclor-1016	88.04
11104-28-2	Aroclor-1221	88.04
11141-18-5	Aroclor-1232	88.04
53469-21-9	Aroclor-1242	88.04
12672-29-6	Aroclor-1248	88.04
11097-69-1	Aroclor-1254	180.04
11096-82-5	Aroclor-1260	180.04

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.05g V_i 20000ul V_t 2ul, 5ul

Organics Analysis Data Sheet
(Page 1)

Sample Number

FS-3

AAS910

00238

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG 23550

Lab Sample ID No: AA5990

QC Report No: _____

Sample Matrix: Feed Stock

Contract No: _____

Data Release Authorized By: W.T. Wilson

Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) 8.4

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-8	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-89-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-3	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample used, the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully explained and such description attached to the data summary report.

00239

Laboratory Name ITAS-KNOXVILLECase No EGG 23550Sample Number
FS-3Organics Analysis Data Sheet
(Page 2)

AA5890

Semivolatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 12-15-86Date Analyzed: 1-9-87Conc/Dil Factor: (0.03001 / 1.0 ml) 0.9156Percent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☐ Yes ☒ NAContinuous Liquid-Liquid Extraction ☐ Yes ☒ NA

Dryness Factor

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39538-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methoxyphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethoxyphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methoxyphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	✓
88-06-2	2,4,6-Trichlorophenol	330. u 3600. u
95-95-4	2,4,5-Trichlorophenol	3600. 1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	1600. u
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	330. u
85-68-7	Butylbenzylphthalate	2300. u
91-94-1	3,3'-Dichlorobenzidine	1600. u
56-55-3	Benz[a]Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-08-9	Benzokifluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
83-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benz[a,h,i]Perylene	✓

(1): Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23550

Sample Number
FS-3

Organics Analysis Data Sheet
(Page 3)

00241

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-15-86
Date Analyzed: 12-20-86 1-16-87
Conc Dil Factor 1/4, 1/20
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/100ug Kg (Circle One)
319-84-6	Alpha-BHC	<u>N/A</u>
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	<u>↓</u>
8001-35-2	Toxaphene	<u>170.04</u>
12674-11-2	Aroclor-1016	<u>87.04</u>
11104-28-2	Aroclor-1221	<u>87.04</u>
11141-16-5	Aroclor-1232	<u>87.04</u>
53469-21-9	Aroclor-1242	<u>87.04</u>
12672-29-6	Aroclor-1248	<u>87.04</u>
11097-89-1	Aroclor-1254	<u>170.04</u>
11096-82-5	Aroclor-1260	<u>170.04</u>

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.01g V_i 20000ul V_t 2ul, 5ul

Organics Analysis Data Sheet
(Page 1)

Sample Number
FS-5

AA6416

00143

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA6416
Sample Matrix: Feed Stock
Data Release Authorized By: W.T. Wilson

Case No: EGG Z3609
QC Report No: _____
Contract No: _____
Date Sample Received: _____

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: NA
Date Analyzed: NA
Conc/Dil Factor: NA pH _____
Percent Moisture: (Not Decanted) 8.0

**NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER**

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-89-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: ITAS - KnoxvilleCase No: EGG 23609

Sample Number

FS - 5

AA 6416

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

00144

Concentration: (Low) Medium (Circle One)Date Extracted/Prepared: 12-22-86Date Analyzed: 1-10-87Conc/Dil Factor: (0.0322 Kg / 1.0 ml) 0.9204Percent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☐ Yes ☒ NAContinuous Liquid - Liquid Extraction ☐ Yes ☒ NA

CAS Number		ug/100 ug/Kg (Circle One)
108-95-2	Phenol	660u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnonol	
39638-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methylnonol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnonol	✓
65-85-0	Benzoic Acid	3200u
111-91-1	bis(2-Chloroethoxy)Methane	660u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnonol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	3200u
91-58-7	2-Chloronaphthalene	660u
88-74-4	2-Nitroaniline	3200u
131-11-3	Dimethyl Phthalate	660u
208-96-6	Acenaphthylene	660u
99-09-2	3-Nitroaniline	3200u

CAS Number		ug/100 ug/Kg (Circle One)
83-32-9	Acenaphthene	660u
51-28-5	2,4-Dinitrophenol	3200u
100-02-7	4-Nitrophenol	3200u
132-64-9	Dibenzofuran	660u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
81-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	3200u
534-52-1	4,6-Dinitro-2-Methylnonol	3200u
86-30-6	N-Nitrosodiphenylamine (1)	660u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	3200u
85-01-8	Phenanthrene	660u
120-12-7	Anthracene	660u
84-74-2	Di-n-Butylphthalate	120, JB
206-44-0	Fluoranthene	660u
129-00-0	Pyrene	
85-58-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	1300u
56-55-3	Benz[a]Anthracene	660u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-08-9	Benzokifluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benz[a,h,i]Perylene	

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23609

Sample Number
FS-5

Organics Analysis Data Sheet
(Page 3)

00146

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-22-86
Date Analyzed 1-10-87
Conc Dil Factor 1/10, 1/100
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	320.0U
12674-11-2	Aroclor-1016	110.0
11104-28-2	Aroclor-1221	630.0
11141-16-5	Aroclor-1232	87.0U
53469-21-9	Aroclor-1242	87.0U
12672-29-6	Aroclor-1248	94.0U
11097-69-1	Aroclor-1254	170.0U
11096-82-5	Aroclor-1260	270.0U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.22 g V_i 20000.0 V_t 5.0

Organics Analysis Data Sheet
(Page 1)

Sample Number

FS-6

AA6414

00201

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG 23609

Lab Sample ID No: AA6414

QC Report No: _____

Sample Matrix: Feed Stock

Contract No: _____

Data Release Authorized By: W.T. Gurland

Data Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) 9.2

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-08-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are discouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compounds or pesticides 210 ng/l or in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLECase No: EGG 23609

Sample Number

FS-6Organics Analysis Data Sheet
(Page 2)AA6414AA6414D *

Semivolatile Compounds

00202

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 12-22-86Date Analyzed: 1-09-87Conc/Dil Factor: (0.03005 Kg / 1.0 ml) 0.9078Percent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☒ Yes ☐ NAContinuous Liquid-Liquid Extraction ☒ Yes ☐ NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
37-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Iscorhone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	220. J
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	210. J
120-82-1	1,2,4-Trichlorobenzene	330. u
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
52-20-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	5700. *
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
605-20-2	2,6-Dinitrotoluene	
84-58-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	73 J8
205-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	
91-94-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benzo(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	

(1) Cannot be separated from diphenylamine

* Value taken from dilution

Form I

7/85

Laboratory Name ITAS KnoxvilleCase No EGG 23609

Sample Number

FS-6

Organics Analysis Data Sheet

(Page 3)

00204

Pesticide/PCBs

Concentration Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-22-86Separatory Funnel Extraction ☐ YesDate Analyzed 1/9, 11/87Continuous Liquid-Liquid Extraction ☐ YesConc Dil Factor 1/10 1/100

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC/Lindane	
74-44-8	Heptachlor	
305-90-2	Aldrin	
1024-37-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-53-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Chlorobenzene	
57-74-9	Chloroform	
8001-35-2	Toluene	320.0U
12674-11-2	Aroclor-1016	110.0U
11104-28-2	Aroclor-1221	50.0U
11141-18-5	Aroclor-1232	28.0U
53459-21-9	Aroclor-1242	88.0U
12872-29-6	Aroclor-1248	95.0U
11027-53-1	Aroclor-1254	170.0U
11095-82-5	Aroclor-1260	280.0U

 V_i = Volume of extract injected (ul) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (ul) V_s _____ or W_s 30.05 g V_i 20000 ul V_t 5 ul

Organics Analysis Data Sheet
(Page 1)

Sample Number

AD-1

AA 5891RZ

00009

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG 23550

Lab Sample ID No: AA 5891RZ

QC Report No: _____

Sample Matrix: Ash

Contract No: _____

Data Release Authorized By: W.T. Wilson

Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloromethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-68-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
58-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-62-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for this sample.
- J** Indicates an estimated value. This flag is used either when assuming a concentration for tentatively identified compounds where a 1:1 response is presumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible laboratory blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such descriptions attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
Case No. EGG 23550

Sample Number

AD-1

Organics Analysis Data Sheet
(Page 2)

AA 5891 R2

Semivolatile Compounds

00010

Concentration: Low Medium (Circle One)

GPC Cleanup: ☐ Yes ☒ No

Date Extracted/Prepared: 12-15-86

Separatory Funnel Extraction ☐ Yes ☒ No

Date Analyzed: 1-19-87

Continuous Liquid-Liquid Extraction ☐ Yes ☒ No

Conc/Dil Factor: (0.03002 kg / 1.0 ml) 0.015

Dryness Factor

Percent Moisture (Decanted) NA

CAS Number		ug/100ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnaphenol	
39533-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methylnaphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnaphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnaphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
203-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/100ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,5-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylnaphenol	1600. u
96-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	5200. u
205-44-0	Fluoranthene	330. u
129-00-0	Pyrene	330. u
85-68-7	Butylbenzylphthalate	330. u
91-94-1	3,3'-Dichlorobenzidine	660. u
55-55-3	Benzo(a)anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	330. u
218-01-9	Chrysene	330. u
117-84-0	Di-n-Octyl Phthalate	
205-39-2	Benzo(b)fluoranthene	
207-08-9	Benzo(k)fluoranthene	
50-32-8	Benzo(a)pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
83-70-3	Dibenz(a,h)anthracene	
191-24-2	Benzo(g,h,i)perylene	✓

(1) Cannot be separated from diphenylamine

Organics Analysis Data Sheet
(Page 1)

Sample Number

AD-2

AA 5892

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG Z3550 00050

Lab Sample ID No: AA 5892

QC Report No: _____

Sample Matrix: Ash

Contract No: _____

Data Release Authorized By: W.T. Wilson

Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) 25.0

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-68-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethoxyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-47-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results conventions are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for this sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compound pesticides ≥10 ng/g in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible procedure blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Extra 1

853

11/85

Laboratory Name ITAS-KNOXVILLECase No: EGG 23550

Sample Number

AD-2

AA 5892

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

00051

Concentration: Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-15-86Separatory Funnel Extraction ☐ Yes ☒ NADate Analyzed: 1-9-87Continuous Liquid-Liquid Extraction ☐ Yes ☒ NAConc/Dil Factor: (0.03007 Kg / 1.0 ml) 0.74985

Dryness Factor

Percent Moisture (Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethoxy)Ether	
93-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
93-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnphenol	
39533-32-3	bis(2-chloroisopropoxy)Ether	
105-44-5	4-Methylnphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	350. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
98-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
203-95-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-84-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylnphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Acenaphthene	
84-74-2	Di-n-Butylphthalate	
205-44-0	Fluoranthene	
123-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	660. u
55-55-3	Benz[a]Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-08-9	Benzofluoranthene	
50-32-8	Benzo[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benzo[b]fluoranthene	✓

(1)- Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 33550

Sample Number
AD-2

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00053

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-15-86
Date Analyzed 12-19-86
Conc/Dil Factor 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-8	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-33-2	Toxaphene	210.04
12674-11-2	Aroclor-1016	110.0
11104-23-2	Aroclor-1221	110.0
11141-16-5	Aroclor-1232	110.0
53489-21-9	Aroclor-1242	110.0
12672-29-6	Aroclor-1248	110.0
11037-89-1	Aroclor-1254	210.04
11096-82-5	Aroclor-1260	210.04

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.57g V_i 20000ul V_t 2ul

Organics Analysis Data Sheet
(Page 1)

Sample Number

AD-3

AA5813

00085

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG 23550

Lab Sample ID No: AA5893

QC Report No: _____

Sample Matrix: Ash

Contract No: _____

Data Release Authorized By: (V.T. Wilson)

Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) 22.0

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-08-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
103-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results in EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum detectable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Sample component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible or probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLECase No EGG 23550

Sample Number

AD-3

AA5893

Organics Analysis Data Sheet

(Page 2)

00086

Semivolatile Compounds

Concentration: Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-15-86Separatory Funnel Extraction ☒ Yes ☐ NoDate Analyzed 1-9-87Continuous Liquid-Liquid Extraction ☐ Yes ☒ NoConc/Dil Factor: (0.03014 Kg / 1.0 ml) 0.7804

Dryness Factor

Percent Moisture (Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Dithionthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
34-74-2	Di-n-Butylphthalate	3600. u
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	330. u
95-68-7	Butylbenzylphthalate	130. u
91-94-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benz(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz(b)Fluoranthene	
207-08-9	Benz(k)Fluoranthene	
50-32-8	Benz(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benz(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

00088

Laboratory Name ITAS Knoxville
 Case No EGG 23550

Sample Number

AD-3

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-15-86Separatory Funnel Extraction ☐ YesDate Analyzed 12-20-86Continuous Liquid - Liquid Extraction ☐ YesConc/Dil Factor 1

Percent Moisture (decanted) _____

CAS
Numberug/100ug/Kg
(Circle One)

319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-35-2	Toxaphene	210.04
12874-11-2	Aroclor-1018	100.4
11104-23-2	Aroclor-1221	100.4
11141-16-5	Aroclor-1232	100.4
53469-21-9	Aroclor-1242	100.4
12672-29-6	Aroclor-1248	100.4
11097-89-1	Aroclor-1254	210.04
11096-82-5	Aroclor-1260	210.04

 V_i = Volume of extract injected (ul) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (ul)

V_s _____ or W_s 30.14g V_i 20000ul V_t 2ul

Organics Analysis Data Sheet
(Page 1)

Sample Number

AD-5

001

AA641705

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG 23609

Lab Sample ID No: AA641705

QC Report No: _____

Sample Matrix: Ash

Contract No: _____

Data Release Authorized By: W-T. Wilson

Date Sample Received: 12-11-84

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Fact.: NA pH _____

Percent Moisture: (Not Decanted) 22.8

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible or probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-Knoxville
Case No. EGG 23 609

Sample Number
AD-5
AA641705

Organics Analysis Data Sheet
(Page 2)

Semivolatiles Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-22-86
Date Analyzed: 1-10-87
Conc/Dil Factor: (0.03028 Kg / 1.0 ml) 0.7720
Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes NA
Continuous Liquid-Liquid Extraction ☐ Yes NA

CAS Number		ug/100 ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl) Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy) Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-35-4	2,4,5-Trichlorophenol	210. J
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/100 ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-65-2	Diethylphthalate	
7005-72-3	4-Chlorobenzyl-phenylether	
85-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromobenzyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
34-74-2	Di-n-Butylphthalate	64. JB
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	660. u
55-55-3	Benz(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz(b)Fluoranthene	
207-03-3	Benz(k)Fluoranthene	
57-11-8	Benz(a)Pyrene	
19-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benz(g,h,i)Perylene	✓

(1)-Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23609

Sample Number

AD-5

001

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12-22-86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1-10, 11-87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc Dil Factor 42, 1/20

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-47-5	Methoxychlor	
53404-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
8001-35-2	Toxaphene	210.0u
12674-11-2	Aroclor-1016	100.0u
11104-28-2	Aroclor-1221	100.0u
11141-16-5	Aroclor-1232	100.0u
53489-21-9	Aroclor-1242	100.0u
12672-29-8	Aroclor-1248	100.0u
11097-89-1	Aroclor-1254	210.0u
11096-62-5	Aroclor-1250	210.0u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.28g V_i 20000.0 V_t 5.0

Organics Analysis Data Sheet
(Page 1)

Sample Number

AD-6

AA6415

00

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG 23609

Lab Sample ID No: AA6415

QC Report No: _____

Sample Matrix: Ash

Contract No: _____

Data Release Authorized By: W.T. Wilson

Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) 24.6

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
79-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylnvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Guidelines

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Sample component pesticide's ≥10 ng/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLECase No. EGG 23 609

Sample Number

AD-6.

005

Organics Analysis Data Sheet
(Page 2)

AA 6415

Semivolatile Compounds

Concentration: Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-22-86Separatory Funnel Extraction ☐ Yes NADate Analyzed: 1-10-87Continuous Liquid-Liquid Extraction ☐ Yes NAConc/Dil Factor: (0.03016 kg / 1.0 ml) 0.7538Percent Moisture (Decanted) NA

CAS Number		ug/l <u>ug/Kg</u> (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorocyclopentadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-95-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l <u>ug/Kg</u> (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-86-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenyl ether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
100-55-3	4-Bromophenyl-phenyl ether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
94-74-2	Di-n-Butylphthalate	70. J
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
84-58-7	Butylbenzylphthalate	✓
31-34-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benz[a]Anthracene	72. J
117-81-7	bis(2-Ethylhexyl)Phthalate	330. u
218-01-9	Chrysene	60. J
117-84-0	Di-n-Octyl Phthalate	330. u
205-09-2	Benz[b]Fluoranthene	75. J
207-08-3	Benz[k]Fluoranthene	62. J
50-32-8	Benz[a]Pyrene	82. J
193-39-5	Indeno[1,2,3-cd]Pyrene	78. J
53-70-3	Dibenz[a,h]Anthracene	72. J
191-24-2	Benz[a,h]Perylene	79. J

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23609

Sample Number
AD-6

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-22-86
Date Analyzed 1-10-87
Conc Dil Factor 1/2, 1/20
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
8001-35-2	Toxaphene	210.0u
12574-11-2	Aroclor-1016	110.0
11104-28-2	Aroclor-1221	110.0
11141-16-5	Aroclor-1232	110.0
53469-21-9	Aroclor-1242	110.0
12572-29-8	Aroclor-1248	110.0
11097-89-1	Aroclor-1254	210.0u
11096-82-5	Aroclor-1260	210.0u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.16g V_i 20000.00 V_t 5.00

Organics Analysis Data Sheet
(Page 1)

Sample Number
BS-1

AA6445

00106

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG-23609

Lab Sample ID No: AA6445

QC Report No:

Sample Matrix: Treated Soil

Contract No:

Data Release Authorized By: W.T. Wilson

Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH

Percent Moisture: (Not Decanted) 8.4

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10051-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10051-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylnvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
73-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Guidelines

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than 100 pg/l or 10U. If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated report as JJ.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides 210 ng/l or in the final extract should be confirmed by GC/MS.
- S** This flag is used when the analyte is found in the name as well as a sample. It indicates possible, probable, or confirmed contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to clarify or explain the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
Case No: EGG 23609

Sample Number
BS-1.

Organics Analysis Data Sheet
(Page 2)

AA6445

00107

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed: 1-10-87

Conc/Dil Factor: (0.03001 kg / 1.0 ml) 0.9165

Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No

Separatory Funnel Extraction ☐ Yes NA

Continuous Liquid - Liquid Extraction ☐ Yes NA

CAS Number		ug/100 ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-8	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
83-05-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,6-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
38-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/100 ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-84-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-86-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
85-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	✓
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
54-74-2	Di-n-Butylphthalate	140.78
206-44-0	Fluoranthene	
129-00-0	Pyrene	
93-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	660. u
56-65-3	Benzoxanthracene	330. u
117-31-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-09-9	Benzokifluoranthene	
50-32-3	Benzofluoranthene	
133-39-5	Indeno(1,2,3-cd)Pyrene	
83-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzod(h)Perylene	✓

(1)- Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23609

Sample Number
BS-1

Organics Analysis Data Sheet
(Page 3)

00109

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-22-86
Date Analyzed 1-10-87
Conc/Dil Factor 1, 420
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha BHC	NA
319-85-7	Beta BHC	
319-86-8	Delta BHC	
58-89-9	Gamma BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	170.0u
12874-11-2	Aroclor-1016	97.0u
11104-28-2	Aroclor-1221	97.0u
11141-15-3	Aroclor-1232	97.0u
53489-21-9	Aroclor-1242	97.0u
12872-29-6	Aroclor-1248	97.0u
11037-49-1	Aroclor-1254	170.0u
11098-82-5	Aroclor-1260	170.0u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.01 g V_i 20000 ul V_t 5 ul

Sample Number
ENT - B

Organics Analysis Data Sheet (Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23548
 Lab Sample ID No: AA5828 QC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: W.F. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Eil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILE ANALYSIS REQUESTED THIS SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
73-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
109-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results in EPA, the following numeric qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum allowable detection limit for this sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the tentative detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag appears to indicate for samples where the identification has been confirmed by GC/MS. Sample components present at 210 ng/l or in the final extract should be confirmed by GC/MS.
- S** This flag is used when the analyte is found in the blank as well as in sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other reporting flags and footnotes may be returned to correctly define the results. If used, they must be fully described and such descriptions attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
Case No: E.G.C. 23548

Sample Number

ENT-B

AA5828

Organics Analysis Data Sheet
(Page 2)

Semivolatiles Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-12-86
Date Analyzed: 1-18-87
Conc/Dil Factor: 0.850L / 2.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☒ Yes ☐ No

CAS Number		ug/l or ug/Kg (Circle One)
103-95-2	Phenol	10.0
111-44-4	bis(2-Chloroethoxy) Ether	
93-57-8	2-Chlorophenol	
541-75-1	1,3-Dichlorobenzene	
105-45-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropoxy) Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
93-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	61
111-91-1	bis(2-Chloroethoxy) Methane	10.0
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
105-47-8	4-Chloroaniline	
37-33-3	Hexachlorocyclopentadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-3	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
83-09-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50.0
31-53-7	2-Chloronaphthalene	10.0
39-74-4	2-Nitroaniline	50.0
131-11-3	Dimethyl Phthalate	2.7
203-95-8	Acenaphthylene	10.0
99-09-2	3-Nitroaniline	50.0

CAS Number		ug/l or ug/Kg (Circle One)
93-32-9	Acenaphthene	10.0
51-28-5	2,4-Dinitrophenol	50.0
100-02-7	4-Nitrophenol	50.0
132-84-9	Dibenzofuran	10.0
121-14-2	2,4-Dinitrotoluene	
805-20-2	2,6-Dinitrotoluene	
34-68-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
36-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50.0
534-52-1	4,6-Dinitro-2-Methylphenol	50.0
36-30-6	N-Nitrosodiphenylamine (1)	4.8
101-55-3	4-Bromophenyl-phenylether	10.0
118-74-1	Hexachlorobenzene	10.0
87-86-5	Pentachlorophenol	50.0
85-01-8	Phenanthrene	10.0
120-12-7	Anthracene	10.0
24-74-2	Di-n-Butylphthalate	10.0
206-44-0	Fluoranthene	10.0
129-00-0	Pyrene	
35-83-7	Butylbenzylphthalate	✓
31-34-1	3,3'-Dichlorobenzidine	20.0
39-55-3	1-methylanthracene	10.0
117-81-7	bis(2-Ethylhexyl)Phthalate	
213-01-3	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
105-93-2	1-methylfluoranthene	
207-03-9	1-methylfluoranthene	
20-32-8	1-methylpyrene	
103-29-3	1-methyl-1,2,3-cdPyrene	
33-70-5	1-methyl-1,2,3-cdAnthracene	
191-24-2	1-methyl-1,2,3-cdPerylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23948

Sample Number
ENT B

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-12-86
Date Analyzed 12-19-86
Conc/Dil Factor 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-99-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
9001-35-2	Toxaphene	1.04
12674-11-2	Aroclor-1018	0.54
11104-29-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
53489-21-9	Aroclor-1242	0.54
12872-39-3	Aroclor-1248	0.54
11097-39-1	Aroclor-1254	1.04
11098-82-5	Aroclor-1260	1.04

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 880 ml or W_s _____ V_i 10000 ul V_t 2 ul

Organics Analysis Data Sheet (Page 1)

Sample Number
ENT-1

041

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA 5829
Sample Matrix: WATER
Data Release Authorized By: W.T. Williams

Case No: EGG 23549
QC Report No: _____
Contract No: _____
Data Sample Received: 12-9-86

Volatiles Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
103-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10051-02-8	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-43-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethoxyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
109-83-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results as EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample when the U (e.g., 100) based on necessary concentration/detection action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum achievable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively significant compounds where a 1:1 ratio is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10.0). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.

G This flag applies to parameters where the detection limit has been confirmed by GC-MS. Sample component detected ≥ 10 ng/l in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable, or confirmed contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to explain the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
Case No: EGG-23548

Sample Number
ENT-1
AASF29

041

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-12-86
Date Analyzed: 1-18-87
Conc/Dil Factor: 1.0 L / 2.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☒ Yes ☐ No

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10.0
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39639-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachlorocyclohexane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	45
111-91-1	bis(2-Chloroethoxy)Methane	10.0
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-3	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
33-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,3,5-Trichlorophenol	50.0
91-58-7	2-Chloronaphthalene	10.0
88-74-4	2-Nitroaniline	50.0
131-11-3	Dimethyl Phthalate	4.8 J
203-95-8	Acenaphthylene	10.0
99-09-2	3-Nitroaniline	50.0

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10.0
51-28-5	2,4-Dinitrophenol	50.0
100-02-7	4-Nitrophenol	50.0
132-64-9	Dibenzofuran	10.0
121-14-2	2,4-Dinitrotoluene	
305-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	50.0
534-52-1	4,6-Dinitro-2-Methylphenol	50.0
86-30-6	N-Nitrosodiphenylamine (1)	5.8 J
101-53-3	4-Bromophenyl-phenylether	10.0
118-74-1	Hexachlorobenzene	10.0
87-86-5	Pentachlorophenol	50.0
85-01-8	Phenanthrene	10.0
120-12-7	Anthracene	10.0
54-74-2	Di-n-Butylphthalate	10.0
206-44-0	Fluoranthene	10.0
129-00-0	Pyrene	
35-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	20.0
54-55-3	Benz(a)Anthracene	10.0
117-81-7	bis(2-Ethylhexyl)Phthalate	
219-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	benz(b)fluoranthene	
207-08-9	benz(k)fluoranthene	
50-32-3	benz(a)pyrene	
193-33-5	Indand(1,2,3-cd)Pyrene	
53-70-3	Quinaza n(anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1)-Cannot be separated from diphenylamine

044

Laboratory Name ITAS Knoxville
 Case No EGG 23548

Sample Number
ENT-1

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Data Extracted/Prepared 12-12-86
 Data Analyzed 12-19-86
 Conc Oil Factor 1
 Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☒ Yes
 Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/g or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-39-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-35-2	Toxaphene	1.04
12874-11-2	Aroclor-1015	0.54
11104-28-2	Aroclor-1221	0.54
11141-18-5	Aroclor-1232	0.54
83489-21-9	Aroclor-1242	0.54
12972-29-5	Aroclor-1248	0.54
11097-00-1	Aroclor-1254	1.04
11098-82-5	Aroclor-1260	1.04

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_i 960 ml or W_s _____ V_t 10000 ul V_s 2 ml

Sample Number
CAT-2

Organics Analysis Data Sheet (Page 1)

075

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA5830
Sample Matrix: WATER
Data Release Authorized By: W.T. Wilson

Case No: EGG 23548
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-1	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum estimate detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C This flag applies to identified compounds where the identification has been confirmed by GC/MS. Single component detection ≥10 ng/l in the final extract should be confirmed by GC/MS.
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible pre-test blank contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS - Knoxville
Case No: EGG- 23548

Sample Number
ENT-2

H. 5830

071

Organics Analysis Data Sheet (Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12-12-86
Date Analyzed: 1-18-87
Conc/Dil Factor: 0.790 L / 2.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☒ Yes/NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-84-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	83.
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
83-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
83-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	3.6 J
203-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-84-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,6-Dinitrotoluene	
94-68-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl phenyl ether	
86-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	4.9 J
101-55-3	4-Bromophenyl phenyl ether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	10. u
206-43-0	Fluoranthene	10. u
129-00-0	Pyrene	
35-88-7	Butylbenzylphthalate	✓
31-84-1	3,3'-Dichlorobenzidine	20. u
86-85-3	Benzo(a)Anthracene	10. u
117-31-7	bis(2-Ethylhexyl)Phthalate	
213-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-03-0	Benzo(k)Fluoranthene	
50-32-3	Benzo(a)Pyrene	
113-30-5	Indeno(1,2,3-cd)Pyrene	
33-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(b,h)Perylene	✓

(1) Cannot be separated from diphenylamine

Form I

7/85

Laboratory Name ITAS Knoxville
Case No EGG 23548

Sample Number
ENT -2

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12-12-86

Separatory Funnel Extraction ☒ Yes

Date Analyzed 12-19-86

Continuous Liquid - Liquid Extraction ☐ Yes

Conc/Dil Factor 1

Percent Moisture (decanted) _____

CAS Number		<u>ug/L</u> or <u>ug/Kg</u> (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
8001-35-2	Tosaphene	1.04
12874-11-2	Aroclor-1016	0.54
11104-28-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
83489-21-9	Aroclor-1242	0.54
12872-29-8	Aroclor-1248	0.54
11097-39-1	Aroclor-1254	1.04
11096-82-5	Aroclor-1260	1.04

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 860ml or W_s _____ V_i 10000ul V_t 2ul

Organics Analysis Data Sheet
(Page 1)

Sample Number
ENT 5

0032

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23610
Lab Sample ID No: AA6451 RP QC Report No: _____
Sample Matrix: WATER Contract No: _____
Data Release Authorized By: W.T. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: NA
Date Analyzed: NA
Conc/Dil Factor: NA pH _____
Percent Moisture: (Not Decanted) _____

} NO VOLATILE ANALYSIS REQUESTED THIS SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
109-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Guidelines

For reporting results to EPA, the following reporting guidelines are used. Additional flags or footnotes explaining results are encouraged. However, the denominator of each flag must be explicit.

- | | |
|--|---|
| <p>Value If the result is a value greater than or equal to the detection limit, report the value.</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated report as 3J.</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.</p> <p>Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.</p> |
|--|---|

Laboratory Name ITAS-KNOXville
 Case No: EGG 23610

Sample Number
ENTS

0033

Organics Analysis Data Sheet
 (Page 2)

AA645IRP

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 1-15-87
 Date Analyzed: 1-17-87
 Conc/Dil Factor: 1.06 / 2.0 ml
 Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☒ Yes
 Continuous Liquid - Liquid Extraction ☐ Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-58-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
35-35-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-36-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-84-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-68-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	4.0 J
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-85-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
208-44-0	Fluoranthene	
129-00-0	Pyrene	
35-58-7	Butylbenzylphthalate	✓
91-94-1	3,3-Dichlorobenzidine	20. u
58-55-3	Benzo(a)Anthracene	10. u
117-31-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-03-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
133-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
131-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EAG 23610

0035

Sample Number
ENT-5

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12-21-86

Separatory Funnel Extraction ☒ Yes

Date Analyzed 1-9-87

Continuous Liquid-Liquid Extraction ☐ Yes

Conc Dil Factor 1, 110

Percent Moisture (decanted) _____

CAS Number		<u>ug/L</u> or ug/Kg (Circle One)
319-24-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
50-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.0u
12574-11-2	Aroclor-1015	0.5u
11104-28-2	Aroclor-1221	0.5u
11141-16-5	Aroclor-1232	0.5u
53489-21-9	Aroclor-1242	0.5u
12672-29-6	Aroclor-1248	0.5u
11037-69-1	Aroclor-1254	1.0u
11096-82-5	Aroclor-1260	1.0u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 10000 ul V_t 5.0

Sample Number
ENT 6

Organics Analysis Data Sheet
(Page 1)

0067

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 73610
Lab Sample ID No: PA 6457 RP QC Report No: _____
Sample Matrix: water Contract No: _____
Data Release Authorized By: W. T. Gudson Date Sample Received: 12-17

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: NA
Date Analyzed: NA
Conc/Dil Factor: NA pH _____
Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Questions

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticides and herbicides where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXville
Case No. EGG 23610

Sample Number
ENT6

Organics Analysis Data Sheet
(Page 2)

AA6457RP 0068

Semivolatiles Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 1-15-87
Date Analyzed: 1-17-87
Conc/Dil Factor: 1.0 L / 2.0 ml
Percent Moisture (Decanted): NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☒ Yes ☐ NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl) Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39638-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methoxyphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachlorocyclopentadiene	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy) Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorocyclopentadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,6-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
203-96-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,6-Dinitrotoluene	
34-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	50. u
35-30-6	N-Nitrosodiphenylamine (1)	2.0 J
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
94-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
129-00-0	Pyrene	
85-63-7	Butylbenzylphthalate	✓
91-84-1	3,3'-Dichlorobenzidine	20. u
53-55-3	Benzo[a]anthracene	10. u
117-81-7	bis(2-Ethylhexyl) Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo[b]fluoranthene	
207-08-9	Benzo[k]fluoranthene	
50-32-4	Benzo[a]pyrene	
193-33-5	Indeno[1,2,3-cd]pyrene	
53-70-3	Dibenz[a,h]anthracene	
191-24-2	Benzo[g,h,i]perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EEG 23610

0070

Sample Number
ENT-6

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12-21-86

Separatory Funnel Extraction ☒ Yes

Date Analyzed 1-9-87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc Dil Factor 1

Percent Moisture (decanted) _____

CAS Number ug/l or ug/Kg
(Circle One)

319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-85-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.04
12674-11-2	Aroclor-1016	0.54
11104-28-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
53469-21-9	Aroclor-1242	0.54
12672-29-6	Aroclor-1248	0.54
11097-89-1	Aroclor-1254	1.04
11096-82-5	Aroclor-1260	1.04

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 10000 ul V_t 5 ul

Sample Number

CW

Organics Analysis Data Sheet
(Page 1)

0007

Laboratory Name: ITAS - KNOXVILLECase No: EGG 23610Lab Sample ID No: AA6464RP

QC Report No: _____

Sample Matrix: water

Contract No: _____

Data Release Authorized By: W. T. WilsonDate Sample Received: 12-17-84

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH —

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
87-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-37-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
103-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following reporting conventions are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U-Compound was analyzed for but not detected. The number is the minimum ascertainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLECase No: ECG 23410Sample Number
CW

0008

Organics Analysis Data Sheet
(Page 2)

AA 6464RP

Semivolatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 1-15-87Date Analyzed: 1-17-87Conc/Dil Factor: 1.0 L / 20. mPercent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☒ YesContinuous Liquid-Liquid Extraction ☒ Yes ☒ NA

CAS Number		<u>ug/L or ug/Kg</u> (Circle One)
108-95-2	Phenol	100. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
106-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	500. u
111-91-1	bis(2-Chloroethoxy)Methane	100. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	500. u
91-58-7	2-Chloronaphthalene	100. u
88-74-4	2-Nitroaniline	500. u
131-11-3	Dimethyl Phthalate	100. u
208-96-8	Acenaphthylene	100. u
99-09-2	3-Nitroaniline	500. u

CAS Number		<u>ug/L or ug/Kg</u> (Circle One)
83-32-9	Acenaphthene	100. u
51-23-5	2,4-Dinitrophenol	500. u
100-02-7	4-Nitrophenol	500. u
132-64-9	Dibenzofuran	100. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,5-Dinitrotoluene	
34-66-2	Dimethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	500. u
534-52-1	4,6-Dinitro-2-Methylphenol	500. u
36-30-6	N-Nitrosodiphenylamine (1)	100. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	500. u
85-01-8	Phenanthrene	100. u
120-12-7	Anthracene	
34-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
129-00-0	Pyrene	
85-63-7	Butylbenzylphthalate	✓
31-94-1	3,3'-Dichlorobenzidine	200. u
56-55-3	Benzofluoranthene	100. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-03-9	Benzokifluoranthene	
50-32-3	Benzofluoranthene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzofluoranthene	✓

(1) Cannot be separated from diphenylamine

0010

Laboratory Name ITAS KnoxvilleCase No E4G 23610

Sample Number

CWOrganics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-21-86Separatory Funnel Extraction ☒ YesDate Analyzed 1-9-87Continuous Liquid - Liquid Extraction ☐ YesConc Dil Factor 1

Percent Moisture (decanted) _____

CAS
Numberug/L or ug/Kg
(Circle One)

319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
78-44-3	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.04
12674-11-2	Aroclor-1016	0.54
11104-23-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
53489-21-	Aroclor-1242	0.54
12672-23-8	Aroclor-1248	0.54
11097-69-1	Aroclor-1254	1.04
11096-32-5	Aroclor-1260	1.04

 V_i = Volume of extract injected (ul) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (ul) V_s 1000 ml or W_s _____ V_i 1000 ul V_t 5 ul

Sample Number

POTW

Organics Analysis Data Sheet
(Page 1)

0100

Laboratory Name: ITAS - KNOXVILLECase No: EGG 23610Lab Sample ID No: A46460RP

QC Report No: _____

Sample Matrix: water

Contract No: _____

Data Release Authorized By: (W.T. Under)Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NADate Analyzed: NAConc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-5	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-8	Trichloroethene	
124-43-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
109-89-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Questions

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compound pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible positive blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
Case No EGG 23610

Sample Number 0101
POTW.
AA6460RP

Organics Analysis Data Sheet (Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 1-15-87
Date Analyzed 1-17-87
Conc/Dil Factor: 1.0 L / 2.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☒ Yes NA

CAS Number		ug/lbr ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
108-47-8	4-Chloroaniline	
87-88-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,5-Trichlorophenol	✓
95-55-4	2,4,5-Trichlorophenol	50. u
31-53-7	2-Chloronaphthalene	10. u
82-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/lbr ug/Kg (Circle One)
33-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-84-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
505-20-2	2,6-Dinitrotoluene	
34-88-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
36-30-6	N-Nitrosodiphenylamine (1)	40 J
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
34-74-2	Di-n-Butylphthalate	
203-44-0	Fluoranthene	
129-00-0	Pyrene	
35-63-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorodiphenylamine	20. u
33-55-3	Benzo(a)Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
219-01-3	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
235-39-2	Benzo(b)Fluoranthene	
207-08-3	Benzo(k)Fluoranthene	
50-32-9	Benzo(e)Pyrene	
193-33-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Q103

Laboratory Name ITAS KnoxvilleCase No EAG 23610

Sample Number

POTW

Organics Analysis Data Sheet

(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-21-86Separatory Funnel Extraction ☒ YesDate Analyzed 1-9-87Continuous Liquid - Liquid Extraction ☐ YesConc Dil Factor 1

Percent Moisture (decanted) _____

CAS Number		<u>ug/L</u> or <u>ug/Kg</u> (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-35-2	Toxaphene	1.04
12674-11-2	Aroclor-1016	0.54
11104-28-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
53489-21-9	Aroclor-1242	0.54
12672-29-6	Aroclor-1248	0.54
11097-69-1	Aroclor-1254	1.04
11096-82-5	Aroclor-1260	1.04

 V_i = Volume of extract injected (ul) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (ul) V_i 1000 ul or W_s _____ V_t 1000 ul V_s 5 ul

Sample Number
WB 1

0128

Organics Analysis Data Sheet (Page 1)

Laboratory Name: ITAS - Knoxville Case No: EGG 2361D
 Lab Sample ID No: AA6470RP QC Report No: _____
 Sample Matrix: water Contract No: _____
 Data Release Authorized By: W. F. Wilson Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-3	2-Chloroethynylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Questions

For reporting results to EPA, the following results only are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit). The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J

- C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

Laboratory Name ITAS-KNOXVILLE
Case No EGG-2361D

Sample Number
WBI

012

Organics Analysis Data Sheet
(Page 2)

AA6470RP

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 1-15-87

Date Analyzed: 1-17-87

Conc/Dil Factor: 1.0 L / 2.0 ml

Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No

Separatory Funnel Extraction ☒ Yes

Continuous Liquid-Liquid Extraction ☒ Yes NA

CAS Number	Compound	ug/L or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
521-54-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-57-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
37-68-3	Hexachlorocyclopentadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclooctadiene	
148-06-2	2,4,6-Trichlorophenol	✓
95-35-4	2,4,6-Trichlorophenol	50. u
31-53-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
203-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/L or ug/Kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
94-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
85-30-6	N-Nitrosodichloroaniline (1)	10. u
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
94-74-2	Di-n-Butylphthalate	
203-44-0	Fluoranthene	
129-00-0	Pyrene	
95-83-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	20. u
56-55-3	Benzo(a)Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-33-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Benzo(g,h,i)Anthracene	
131-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

0131

Laboratory Name ITAS Knoxville
 Case No EAG 23610

Sample Number

WBI

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-21-86Separatory Funnel Extraction ☒ YesDate Analyzed 1-9-87Continuous Liquid - Liquid Extraction ☐ YesConc Dil Factor 1

Percent Moisture (decanted) _____

CAS Number		<u>ug/L</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
53-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.04
12674-11-2	Aroclor-1016	0.54
11104-29-2	Aroclor-1221	0.54
11141-16-5	Aroclor-1232	0.54
53469-21-9	Aroclor-1242	0.54
12672-29-6	Aroclor-1248	0.54
11037-59-1	Aroclor-1254	1.04
11095-82-5	Aroclor-1260	1.04

 V_i = Volume of extract injected (ul) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (ul)

V_s 1000ml or W_s _____ V_i 10000ul V_t 5ul

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. EGG 23550 Contract Laboratory I.T.A.S. - Knoxville Contract No. _____

Low ☒ Medium ☐ High ☐

PESTICIDE										
SEMI-VOLATILE										
VOLATILE										
SURROGATE NO.	TOLUENE-88 (101-117)	MIB (124-131)	1,3-DICHLORO-ETHANE-84 (170-181)	NITRO-BENZENE-88 (121-130)	2-FLUORO-BIPHENYL (100-110)	TERPENTHENE-81 (109-122)	PHENOL-88 (101-110)	2-FLUORO-PHENOL (101-111)	2,4,6-TRIBROMO-PHENOL (110-121)	8-BUTYL-CHLORIDE-80 (100-100)
FS-1				42	50	70	48	46	48	101
FS-1 GC				40	48	66	48	46	44	-
FS-1 GC				34	50	56	50	46	38	-
FS-2				54	64	74	64	66	54	107
FS-3				46	46	58	50	53	43	100
AD-1		NOT SUBMITTED		45	47	52	40	15 *	12 *	111
AD-2				57	54	52	56	54	41	111
AD-3				34	46	43	40	15 *	34	109
AD-IR run				47	52	44	39	26	17 *	-
Method Blank 1				104	108	67	108	114	57	110
Method Blank 2				49	47	51	41	37	26	-
Method Blank 3				-	-	-	-	-	-	88

VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS Volatiles: out of 1 out of 1 outside of QC limits
 ADVISORY LIMITS ONLY Semi-Volatiles: 166 out of 166 outside of QC limits
 Pesticides: 0 out of 8 outside of QC limits

Comments:

00001

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EG 23550 Contractor ITAS Knoxville Contract No. _____

Low Level ✓ Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	OC LIMITS RPD RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethane								22 50-172
	Trichloroethane								24 62-137
	Chlorobenzene								21 60-133
	Xylenes								21 60-130
	Benzene								21 60-132
B/N SMO SAMPLE NO.	1,2,4-Trichlorobenzene	3600	0	890	25*	890	25*	0	23 30-107
	Acenaphthene			940	26*	930	26*	1.2	10 31-137
	2,4-Dinitrotoluene			790	22*	790	22*	0	47 28-69
	Pyrene			1300	36	1100	31*	17	33 35-142
	Hexachlorocyclopentadiene			490	14*	400	11*	20	33 41-128
FS-1 OC	1,4-Dinitrobenzene	✓		950	26*	980	27*	-3.1	27 20-104
	Polychlorophenol	7200		140	1.9*	110	1.5*	2.4	47 17-109
	Phenol			1500	21*	1500	21*	0	33 23-60
	2-Chlorophenol			1800	2.5	1800	2.5	0	60 25-102
	4-Chloro-3-methylphenol			1700	7.4*	1500	2.1*	13	33 28-103
PEST SMO SAMPLE NO.	4-Nitrophenol	✓	✓	550	7.6*	700	9.7*	2.4	50 11-114
	Lindane								50 42-127
	Heptachlor								31 35-130
	Aldrin								43 34-132
	Dieldrin								38 31-134
	Endrin								45 42-139
	4,4'-DDT								50 23-134

*ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RPD: VOA: _____ out of _____: outside OC limits
 B/N: _____ out of _____: outside OC limits
 ACIO: _____ out of _____: outside OC limits
 PEST: _____ out of _____: outside OC limits

Comments: _____

METHOD BLANK SUMMARY

Case No. EGG 23550 Region ITAS-Knoxville Contractor Contract No.

FILE NO	DATE OF ANALYSIS	FRACTION	WATER	COND. (μV/cm)	MSI. NO	CAS NUMBER	COMPOUND (INSULIFIC OR UNKNOWN)	CONC.	UNITS	CRDL
BLK 0742 B1	1-9-87	BW4	ASH	LOW	4023	84-74-2	D.i.n.-butylphthalate	73.3	ug/kg	330.
						625-86-5	Furan, 2,5-dimethyl-	210 J		-
						108-21-4	Acetic Acid, 1-methylethyl ester	1300 J		-
						-	unknown	9600 J		-
						-	unknown (saturated hydrocarbon)	820 J		-
						-	unknown (saturated hydrocarbon)	970 J		-
						-	unknown (saturated hydrocarbon)	1700 J		-
						84-74-2	D.i.n.-butylphthalate	930.		330
BLK 0643 B1	1-9-87	BW4	FEED SAMPLE	LOW	4023	-	unknown	340 J		-
						108-21-4	Acetic Acid, 1-methylethyl ester	2400 J		-
						625-06-9	2-Pentanol, 2,4-dimethyl-*	16000 J		-
						110-12-3	2-hexanone, 5-methyl	1900 J		-
						-	unknown (saturated hydrocarbon)	980 J		-
						-	unknown (saturated hydrocarbon)	2800 J		-
						-	unknown	240 J		-
						4205-26-4	2-hexanone, 6-(acetyloxy)	1900 J		-
						110-13-4	2,5-hexanedione	160 J		-
						-	unknown	760 J		-

Comments: * suspected Alkal condensate

FORM IV

7/85

00003

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Case No. 23550

Region:

Contractor ITAS Knoxville

Contract No.

[illegible]

Comments:

FORM IV

00004

7185

Case No. ECG-23609 Contract Laboratory I.T.A.S. - Knoxville Contract No. _____

Low ✓ Medium

340 TRADING NO.	VOLATILE			SEMI-VOLATILE				PESTICIDE			
	TOLUENE-DB (81-117)	B/B (114-131)	1,2-DICHLORO- ETHANE-DB (170-172)	NITRO- BENZENE-DB (122-129)	2-FLUORO- BIPHENYL (10-116)	TEMPERATEL- DIA (110-127)		PHENOL-DB (26-118)	2-FLUORO- PHENOL (10-121)	2,4,6-TRIFLUORO- PHENOL (110-123)	DISULFID- E-CYCLOHEXANE (120-130)
ACETONOL Bld-1				38	45	46		40	41	29	84
FS-6				45	49	57		48	50	48	110
FS-5				51	61	50		55	70	46	120
AD-5				54	56	37		52	27	36	88
AD-5 MS				47	49	33		51	44	37	74
AD-5 MID				53	61	37		61	49	43	85
BS-1				51	65	44		58	68	39	92
AD-6				46	50	29		48	54	84	100
FS-6-PA				30	48	92		42	42	48	-
							</				

VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

*** ADVISORY LIMITS ONLY

Volatiles:	out of _____	outside of QC limits
Semi-Volatiles:	0 out of 48	outside of QC limits
Pesticides:	0 out of 8	outside of QC limits

7185

Comments:

FORM 11

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

CAGE No. EGG-23607 **Contractor** _____ **Contract No.** _____

_____ 1967 1967

[illegible]

*ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RPD: VOA₁ _____ out of _____ : outside QC limits
 B/N _____ 2 _____ out of 6 _____ : outside QC limits
 ACID _____ 0 _____ out of 5 _____ : outside QC limits
 PEST _____ out of _____ : outside QC limits

RECOVERY: VOA₂ _____ out of _____ : outside QC limits
 B/N _____ 2 _____ out of 12 _____ : outside QC limits
 ACID _____ 0 _____ out of 10 _____ : outside QC limits
 PEST _____ out of _____ : outside QC limits

Comments:

GAL: $\frac{1.0 \text{ ml} \times 50}{0.03084 \text{ kg}} = 9/\text{ml}$ or 2100

KIT: $\frac{\text{total} \times 100}{0.03084} = 6.5$

PEST — out of —; outside QC limits

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 23609 Contractor URS Knoxville Contract No. _____

Low Level V Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	OC LIMITS RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethene								22 60.172
	Trichloroethene								76 62.137
	Chlorobenzene								31 60.133
	Toluene								71 60.139
B/N SMO SAMPLE NO.	Benzene								71 60.132
	1,2,4-Trichlorobenzene								23 58.107
	Acenaphthene								18 51.137
	2,4-Dinitrotoluene								47 28.69
ACID SMO SAMPLE NO.	Pyrene								39 55.147
	N-Ethylmaleimide in Propylamine								38 41.128
	1,4-Dichlorobenzene								77 28.104
	Pentachlorophenol								47 17.109
P/B PEST SMO SAMPLE NO.	Heptachlorophenol								35 28.90
	2-Chlorophenol								60 25.107
	4-Chloro-3-methylphenol								33 28.103
	4-Nitrophenol								50 11.114
	Aroclor 1260	850.	0.	820.	96.	960.	110.	110	

*ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RPD: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

Comments: _____

RECOVERY: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

FORM III

7/05

0003

METHOD BLANK SUMMARY

Case No. EGG-23607 Region Contractor I.T.A.S. - Knoxville Contract No. 0004

FILE NO	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. (LEVEL)	CAS NUMBER	COMPOUND (INSL. TIC OR UNKNOWN)	CONC.	UNITS	CRDL
BLK0704A1	1-9-87	9NA	Soil	L	84-74-2	Di-n-Butylphthalate	110. J	g/l	310.
					108-21-4	Acetic Acid, 1-methyl ethyl ester	2000. J		-
					75-91-2	Hydroperoxide, 1,1-Dimethyl ethyl	14,000. J		-
					921-47-1	Hexane, 2,3,4-Tri methyl	640. J		-
					2216-34-4	Octane, 4-methyl	660. J		-
					52895-87-4	Heptane, 4 (1-methyl ethyl)-	1200. J		-
					5721-82-4	8-Heptanol, Acetate	150. J		-
					20019-64-1	2 (SM) - Benzene, 5,5-Dimethyl-	320. J	✓	-
MS1-EGG 23609	1-10-87	Pest	Soil	L	4374013	none detected	-	-	-
	1-10-87				"	"	-	-	-
	1-11-87				"	"	-	-	-

Comments:

0004

FORM IV

7/85

Case No. E G G 23548 Contract Laboratory I.T.A.S. - Knoxville Contract No. _____

Case # EGG-23548

Contract Laboratory

I.T.A.S. - Knoxville

Contract No.

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED OC LIMITS
 ** ADVISORY LIMITS ONLY

Volatility: _____ out of _____ ; outside of QC limits
 Spread-Volatility: 1 out of 24 ; outside of QC limits
 Pasticlness: 0 out of 4 ; outside of QC limits

Comments:

001

Form 2

7185

Case No. EG-G-2354t Region 1 Contractor I.T.A.S. - Knoxville Contract No. _____

[illegible]

Comment:

FORM

71833

WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. EGG-23610 Contract Laboratory I.T.A.S. - Knoxville Contract No. 0001

WATER SURROGATE NO.	VOLATILE				SEM-VOLATILE				PESTICIDE	
	TOLUENE-88 (88-110)	B.P. (88-110)	1,2 DICHLOROBENZENE-84 (110-111)	WATER-83 (110-111)	2,4,6 TRICHLOROPHENOL (110-111)	TEMPERATURE-84 (110-111)	PHENOL-83 (110-111)	2,4,6 TRICHLOROPHENOL (110-111)	2,4,6 TRICHLOROPHENOL (110-111)	2,4,6 TRICHLOROPHENOL (110-111)
Heptachlor				40	47	48	12	38	38	89
ENDS				45	50	43	17	52	52	100
ENTG				45	48	47	10	60	60	91
POTW				40	47	42	11	43	43	85
CLW				39	54	51	14	46	46	73
WBI				43	52	48	15	43	43	87
WBI-MSD				45	53	45	27	46	46	—
WBI-MSD				39	52	42	15	38	38	—
POTW-MSD				—	—	—	—	—	—	100
POTW-MSD				—	—	—	—	—	—	110

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED OC LIMITS
 * ADVISORY LIMITS ONLY
 Volatiles: out of — ; outside of OC limits
 Semi-Volatiles: 0 out of 48 ; outside of OC limits
 Pesticides: 1 out of 8 ; outside of OC limits

Comments: _____

7/85

FORM II

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGC-13610 Contractor ITAS-KNOXVILLE Contract No. 0002

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS RPD RECOVERY
VOA SLO SAMPLE NO.	1,1-Dichloroethane								14 61-145
	Trichloroethane								14 71-120
	Chlorobenzene								13 75-130
	Toluene								12 78-125
	Benzene								11 78-127
B/N SLO SAMPLE NO.	1,2,4-Trichlorobenzene	200	0.0	86	43	95	48	9.7	28 39-88
	Acenaphthene			110	55	110	55	0.0	31 48-118
	2,4-Dinitrotoluene			75	38	92	46	20	38 24-98
	Pyrene			87	45	95	49	9.6	31 28-127
	Nitro-Di-N-Propylamine			48	24	61	31	24	38 41-116
ACID SLO SAMPLE NO.	1,4-Dichlorobenzene	400		82	41	96	48	16	28 30-97
	Pentachlorobenzene			120	30	200	50	50	50 9-103
	Phenol			62	16	74	19	18	47 12-89
	2-Chlorophenol			150	38	180	45	18	40 27-123
	4-Chloro-3-Methylphenol			58	15*	100	25	53*	42 23-87
PEST SLO SAMPLE NO.	4-Nitrophenol			67	17	34	9*	68*	50 10-50
	Lindane								15 56-123
	Heptachlor								20 40-131
	Aldrin								22 40-120
	Dieldrin								18 52-128
	Endrin								21 56-121
	4,4'-DDT								27 38-127

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOA: out of : outside QC limits
 B/N: out of : outside QC limits
 ACID: out of : outside QC limits
 PEST: out of : outside QC limits

RECOVERY: VOA: out of : outside QC limits
 B/N: out of : outside QC limits
 ACID: out of : outside QC limits
 PEST: out of : outside QC limits

Comments: FOR BOD: 2.0 ml x 50 ug/L = 100 ug/L
0.5 L
for H2O: 2.0 ml x 100 ug/L = 200 ug/L
0.5 L
 FORM 15 7/85

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. E667 23600 Contractor ITAS-Knoxville Contract No. 0003

FRACTION	COMPOUND	CONC. SPIKE ADDED (µg/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	OC LIMITS RPD RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethane								14 81-145
	Trichloroethane								14 71-120
	Chlorobenzene								13 75-130
	Toluene								13 76-125
	Benzene								11 76-127
B/N SMO SAMPLE NO.	1,2,4-Trichlorobenzene								28 39-88
	Acetophenone								31 48-118
	2,4-Dinitrochlorobenzene								38 24-98
	Pyrene								31 25-127
	3,4-Dichlorobenzophenone								38 41-116
ACID SMO SAMPLE NO.	1,4-Dichlorobenzene								28 38-87
	Parachlorophenol								50 9-103
	Phenol								42 12-89
	2-Chlorophenol								40 27-123
	4-Chloro-3-methylphenol								42 23-97
PEST SMO SAMPLE NO.	4-Methylphenol								50 10-80
POTW	Biocides 1240	200.	0	180.	90.	210.	110.	15.	

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs out of 1 : outside QC limits
 B/N out of 1 : outside QC limits
 ACID out of 1 : outside QC limits
 PEST 0 out of 1 : outside QC limits

RECOVERY: VOAs out of 1 : outside QC limits
 B/N out of 1 : outside QC limits
 ACID out of 1 : outside QC limits
 PEST 0 out of 1 : outside QC limits

Comments:

Case No. EGC 23610 Region I.T.A.S. - Knoxville Contractor I.T.A.S. - Knoxville Contract No. _____

[illegible]

Characteri:

0004

FORM IV

5813

Sample Number
METHOD BLANK

Organics Analysis Data Sheet (Page 1)

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23548
 Lab Sample ID No: BLK0620B1R QC Report No: _____
 Sample Matrix: WATER Contract No: _____
 Data Release Authorized By: W.T. Wilson Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: NA
 Date Analyzed: NA
 Conc/Dil Factor: NA pH _____
 Percent Moisture: (Not Decanted) _____

NO VOLATILE ANALYSIS REQUESTED THIS SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-86-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-83-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results conventions are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Values If the result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should note: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C This flag applies to pesticides for which the identification has been determined by GC/MS. Single compound pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- S This flag is used when the analyte is found in the blank as well as a sample. It indicates possible produce blank contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to correctly define the results. If used, they must be fully described and such description included in the data summary report.

Laboratory Name ITAS-KNOXVILLE
Case No. EGG-23548

Sample Number
Method Blank

212

Organics Analysis Data Sheet
(Page 2)

BLK 062081R

Semivolatiles Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-12-86
Date Analyzed: 1-18-87
Conc/Dil Factor: 1.0L / 2.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☐ Yes ☒ NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl) Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methylphenol	
621-84-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy) Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
105-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-8	2-Methylnaphthalene	
77-47-4	Hexachlorocyclooctadiene	
88-05-2	2,4,6-Trichlorophenol	✓
35-35-4	2,4,5-Trichlorophenol	50. u
91-53-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-95-3	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/l or ug/Kg (Circle One)
33-32-9	Acenaphthene	10. u
51-23-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,6-Dinitrotoluene	
84-63-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,8-Dinitro-2-Methylphenol	50. u
83-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
34-74-2	Di-n-Butylphthalate	10. u
208-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
35-58-7	Butylbenzylphthalate	✓
31-34-1	3,3-Dichlorobenzidine	20. u
58-55-3	Benzo(a)anthracene	10. u
117-31-7	bis(2-Ethylhexyl) Phthalate	
218-01-9	Chrysene	
117-34-0	Di-n-Octyl Phthalate	
205-93-2	Benzo(b)fluoranthene	
207-08-9	Benzo(k)fluoranthene	
50-32-8	Benzo(a)pyrene	
133-33-5	Indeno(1,2,3-cd)pyrene	
53-70-3	Dibenz(a,h)anthracene	
131-24-2	Benzo(g,h,i)perylene	✓

(1)- Cannot be separated from diphenylamine

Form 1

7/85

Laboratory Name ITAS Knoxville
 Case No EGG 23548

Sample Number

M01-EGG 23548

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12-12-80

Separatory Funnel Extraction ☒ Yes

Date Analyzed 12-19-80

Continuous Liquid - Liquid Extraction ☐ Yes

Conc Dil Factor

Percent Moisture (decanted)

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
78-44-3	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-85-0	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
8001-35-2	Toxaphene	1.04
12874-11-2	Aroclor-1016	0.54
11104-29-2	Aroclor-1221	0.54
11141-16-3	Aroclor-1232	0.54
33489-21-9	Aroclor-1242	0.54
12672-29-8	Aroclor-1243	0.54
11037-39-1	Aroclor-1254	1.04
11036-82-5	Aroclor-1260	1.04

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 10000 ul V_t 2 ul

Sample Number
Method blank 1

Organics Analysis Data Sheet
(Page 1)

00529

Laboratory Name: ITAS - Knoxville Case No: EGG 23550
Lab Sample ID No: BLK 0762 B1 QC Report No: _____
Sample Matrix: Air Contract No: _____
Data Release Authorized By: W. T. Gulan Data Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1/2

Date Analyzed: _____

Conc/Dil Factor: _____ pH NA

Percent Moisture: (Not Decanted) NA "00"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-65-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethoxyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- V** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticide ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible volatile blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
Case No EGG 23550

Sample Number
Methanol Blank
BLK0762 B1

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

00530

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 12-31-86
Date Analyzed: 1-9-87
Conc/Dil Factor: 0.030 / 1.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes ☒ No
Continuous Liquid - Liquid Extraction ☒ Yes ☒ No
No
Dryness Factor
(Assume = 1)

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-41-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnaphenol	
39638-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methylnaphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorane	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnaphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnaphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
203-95-3	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-84-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
605-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylnaphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	73. J
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
95-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	660. u
55-55-3	Benzoxanthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzobifluoranthene	
207-08-9	Benzokifluoranthene	
60-32-8	Benzofluoranthene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzofluoranthene	✓

(1): Cannot be separated from diphenylamine

Sample Number
Method blank z

Organics Analysis Data Sheet
(Page 1)

00564

Laboratory Name: ITAS - Knoxville
Lab Sample ID No: BLK0643 B1
Sample Matrix: Feed stock
Data Release Authorized By: W. T. Williams

Case No: EGG 23550
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1/1/87

Date Analyzed: _____

Conc/Dil Factor: _____ pH 11.5

Percent Moisture: (Not Decanted) NA ~ "0.0"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	<u>NA</u>
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	<u>NA</u>
10061-02-6	Trans-1, 3-Dichlorocyclohexene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichlorocyclohexene	
110-75-8	2-Chloroethylvinyl ether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable, or definite contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required in order to define the results. If used, they must be fully described and such description attached to the data summary report.

911

Form 1

11/85

Laboratory Name ITAS-KNOXVILLE
Case No. EGG 23550

Sample Number
Method Blank

Organics Analysis Data Sheet
(Page 2)

BLK0643B1

Semivolatile Compounds

00565

Concentration: Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12-15-84

Separatory Funnel Extraction ☐ Yes NA

Date Analyzed 1-9-87

Continuous Liquid-Liquid Extraction ☐ Yes NA

Conc/Dil Factor: 0.030 kg / 1.0 ml

No
Dryness Factor

Percent Moisture (Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnphenol	
39539-32-9	bis(2-chloroisopropyl)Ether	
105-44-5	4-Methylnphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachlorocyclopentadiene	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-05-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
605-20-2	2,5-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylnphenol	1600. u
86-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
97-86-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	930
205-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
95-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	660. u
95-55-3	Benzo(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EEG 23550

Sample Number
Method Blank 2
MB1-EEG 23550
Low Level Soil Blk

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00567

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-15-86
Date Analyzed 12-19-86
Conc/Dil Factor 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-37-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-3	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
8001-35-2	Toxaphene	160.04
12874-11-2	Aroclor-1016	50.04
11104-23-2	Aroclor-1221	50.04
11141-18-5	Aroclor-1232	50.04
53439-21-9	Aroclor-1242	50.04
12872-29-6	Aroclor-1248	50.04
11097-39-1	Aroclor-1254	160.04
11056-32-5	Aroclor-1260	160.04

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_i 20000ul V_t 2ul

Laboratory Name ITAS-Knoxville
Case No. EGG 23550

Sample Number
M62-EGG 23548

Organics Analysis Data Sheet
(Page 3)

Sulfur Clean-up
Blank-
low level soil

Pesticide/PCBs

Concentration Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

0050

Date Extracted/Prepared 12-19-86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 12-20-86

Continuous Liquid - Liquid Extraction ☐ Yes

Conc/Dil Factor 1

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	N/A
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
8001-35-2	Toxaphene	160.0u
12674-11-2	Aroclor-1016	30.0u
11104-23-2	Aroclor-1221	30.0u
11141-16-5	Aroclor-1232	30.0u
53469-21-9	Aroclor-1242	30.0u
12672-29-8	Aroclor-1248	30.0u
11097-69-1	Aroclor-1254	160.0u
11095-32-5	Aroclor-1260	160.0u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_i 1000ul V_t 2ul

Sample Number
Method Blank

Organics Analysis Data Sheet
(Page 1)

00522

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: BLK0704B1
Sample Matrix: Soil - low
Data Release Authorized By: W.T. Wilson

Case No: EGG 23609
QC Report No: _____
Contract No: _____
Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-65-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10051-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessary if the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/g in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLECase No: EGG 23609Sample Number
Method BlankOrganics Analysis Data Sheet
(Page 2)

BLK070431

00523

Semivolatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 12-22-86Date Analyzed: 1-09-87Conc/Dil Factor: 0.030 Kg / 1.0 mPercent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☐ Yes NAContinuous Liquid - Liquid Extraction ☐ Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330. u
111-44-4	bis(2-Chloroethoxy)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
57-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-05-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-59-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-96-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330. u
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	1600. u
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	
506-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
36-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	1600. u
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
34-74-2	Di-n-Butylphthalate	110. u
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	✓
91-84-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benz(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
206-99-2	Benz(b)Fluoranthene	
207-08-9	Benz(k)Fluoranthene	
50-32-8	Benz(a)Pyrene	
193-33-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benz(e,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EEG 23609

Sample Number
Methal Blank 1
M31-EEG 23609

Organics Analysis Data Sheet
(Page 3)

Low Level Soil Blank

00525

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-22-86
Date Analyzed 1-10-87
Conc Dil Factor 1, 1/10
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	N/A
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-3	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	✓
8001-35-2	Toxaphene	160.0u
12874-11-2	Aroclor-1016	30.0u
11164-29-2	Aroclor-1221	30.0u
11141-15-5	Aroclor-1232	30.0u
53469-21-9	Aroclor-1242	30.0u
12572-23-6	Aroclor-1248	30.0u
11097-89-1	Aroclor-1254	160.0u
11095-82-5	Aroclor-1260	160.0u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_i 20000ul V_t 5ul, 2ul

Sample Number
METHOD BLANK | 0272

Organics Analysis Data Sheet (Page 1)

Laboratory Name: ITAS Knoxville
Lab Sample ID No: BLK 083181
Sample Matrix: Water
Data Release Authorized By: W. T. Gilson

Case No: EGG 23610
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with this U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides 210 ng/l or in the final extract should be confirmed by GC-MS.
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name ITAS-KNOXVILLE
Case No EGG 23610

Sample Number

Method Blank!

0275

BLK083181

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 1-15-87
Date Analyzed: 1-17-87
Conc/Dil Factor: 1.0 L / 2.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes ☒ NA

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl) Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-45-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
89-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy) Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-3	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50. u
51-53-7	2-Chloronaphthalene	10. u
89-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
203-95-8	Acenaphthylene	10. u
89-09-2	3-Nitroaniline	50. u

CAS Number		ug/l or ug/Kg (Circle One)
93-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
808-20-2	2,5-Dinitrotoluene	
34-68-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
35-73-7	Fluorene	✓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	50. u
35-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
34-74-2	Di-n-Butylphthalate	
203-44-0	Fluoranthene	
129-00-0	Pyrene	
35-88-7	Butylbenzylphthalate	✓
31-94-1	3,3'-Dichlorobenzidine	20. u
88-55-3	Benzo[a]Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
213-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-39-2	Benzo[b]Fluoranthene	
207-03-9	Benzo[k]Fluoranthene	
50-32-3	Benzo[a]Pyrene	
123-30-3	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benzo[g,h,i]Perylene	✓

(1) Cannot be separated from diphenylamine

0275

Laboratory Name ITAS KnoxvilleCase No EGG 23610Sample Number
MBI-EGG 23610Organics Analysis Data Sheet
(Page 3)

Water Blank

Pesticide/PCBs

Concentration Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-21-86Separatory Funnel Extraction ☒ YesDate Analyzed 1-9-11-87Continuous Liquid - Liquid Extraction ☐ YesConc Dil Factor 1

Percent Moisture (decanted) _____

CAS Number		<u>ug/L</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.0u
12674-11-2	Aroclor-1016	0.5u
11104-23-2	Aroclor-1221	0.5u
11141-16-5	Aroclor-1232	0.5u
53469-21-9	Aroclor-1242	0.5u
12672-29-6	Aroclor-1248	0.5u
11097-39-1	Aroclor-1254	1.0u
11096-82-5	Aroclor-1260	1.0u

 V_i = Volume of extract injected (ul) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (ul) V_s 1000ml or W_s _____ V_i 10000ul V_t 5ul + 2ul

Sample Number
Texas Blank
Charcoal Blank

Organics Analysis Data Sheet (Page 1)

0544

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA6510
Sample Matrix: UOST
Data Release Authorized By: W.T. Wilson

Case No: EGG23612
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-30-86

Date Analyzed: 12-30-86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	50. u
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	7. J
67-64-1	Acetone	440. B
75-15-0	Carbon Disulfide	25. u
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	15. J B
107-06-2	1, 2-Dichloroethane	25. u
78-93-3	2-Butanone	130. B
71-55-6	1, 1, 1-Trichloroethane	25. u
56-23-5	Carbon Tetrachloride	25. u
108-05-4	Vinyl Acetate	50. u
75-27-4	Bromodichloromethane	25. u

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. u
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	6. J
10061-01-5	cis-1, 3-Dichloropropene	25. u
110-75-8	2-Chloroethylvinylether	50. u
75-25-2	Bromoform	25. u
108-10-1	4-Methyl-2-Pentanone	50. u
591-78-6	2-Hexanone	50. u
127-18-4	Tetrachloroethene	42.
79-34-5	1, 1, 2-Tetrachloroethane	25. u
108-88-3	Toluene	3. J
108-90-7	Chlorobenzene	25. u
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value	If the result is a value greater than or equal to the detection limit, report the value	C	This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/L in the final extract should be confirmed by GC-MS.
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.	B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.	Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
METHOD BLANK I

Organics Analysis Data Sheet
(Page 1)

0873

Laboratory Name: ITAS-MOXVILLE
Lab Sample ID No: VOBL12293
Sample Matrix: WATER
Data Release Authorized By: W-T. Wilson

Case No: EGG 23612
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatiles Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-29-86

Date Analyzed: 12-29-86

Conc/Dil Factor: — pH —

Percent Moisture: (Not Decanted) —

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	<u>U</u> 10
74-83-9	Bromomethane	<u>U</u> 10
75-01-4	Vinyl Chloride	<u>U</u> 10
75-00-3	Chloroethane	<u>U</u> 10
75-09-2	Methylene Chloride	<u>3J</u>
67-64-1	Acetone	<u>34</u>
75-15-0	Carbon Disulfide	<u>U</u> 5.0
75-35-4	1, 1-Dichloroethene	<u>U</u> 1
75-34-3	1, 1-Dichloroethane	<u>U</u> 1
156-60-5	Trans-1, 2-Dichloroethene	<u>U</u> 1
67-66-3	Chloroform	<u>5</u>
107-06-2	1, 2-Dichloroethane	<u>U</u> 5.0
78-93-3	2-Butanone	<u>U</u> 10
71-55-6	1, 1, 1-Trichloroethane	<u>U</u> 5.0
56-23-5	Carbon Tetrachloride	<u>U</u> 5.0
108-05-4	Vinyl Acetate	<u>U</u> 10
75-27-4	Bromodichloromethane	<u>U</u> 5.0

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	<u>U</u> 5.0
10061-02-6	Trans-1, 3-Dichloropropene	<u>U</u> 1
79-01-6	Trichloroethene	<u>U</u> 1
124-48-1	Dibromochloromethane	<u>U</u> 1
79-00-5	1, 1, 2-Trichloroethane	<u>U</u> 1
71-43-2	Benzene	<u>U</u> 1
10061-01-5	cis-1, 3-Dichloropropene	<u>U</u> 1
110-75-8	2-Chloroethylvinylether	<u>U</u> 10
75-25-2	Bromoform	<u>U</u> 5.0
108-10-1	4-Methyl-2-Pentanone	<u>U</u> 10
591-78-6	2-Hexanone	<u>U</u> 10
127-18-4	Tetrachloroethene	<u>U</u> 5.0
79-34-5	1, 1, 2, 2-Tetrachloroethane	<u>U</u> 1
108-88-3	Toluene	<u>U</u> 1
108-90-7	Chlorobenzene	<u>U</u> 1
100-41-4	Ethylbenzene	<u>U</u> 1
100-42-5	Styrene	<u>U</u> 1
	Total Xylenes	<u>U</u> 1

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Organics Analysis Data Sheet
(Page 1)

Sample Number
TBLK 791
REAGENT BLANK
METHOD

AA6814

080

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA6814
Sample Matrix: REAGENT SOLVENT
Data Release Authorized By: W.T. Gulam

Case No: EGG 23612
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
691-76-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | |
|---|---|
| <p>Value If the result is a value greater than or equal to the detection limit, report the value</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible portable blank contamination and warns the data user to take appropriate action</p> <p>Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report</p> |
|---|---|

0802

Laboratory Name: ITAS-KNOXVILLE
 Case No: EGG 23612

Sample Number
 REAGENT TB4711
 Method Blank

AA 6814

Organics Analysis Data Sheet (Page 2)

Semivolatiles Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 1-9-87
 Date Analyzed: 1-12-87
 Conc/Dil Factor: 10:1
 Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☐ Yes
 Continuous Liquid - Liquid Extraction ☒ Yes NA

CAS Number		ug/g or ug/kg (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl) Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl) Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy) Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/g or ug/kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	4. ✓
206-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
95-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	20. u
56-55-3	Benzofluoranthene	10. u
117-81-7	bis(2-Ethylhexyl) Phthalate	
218-01-9	Chrysene	✓
117-84-0	Di-n-Octyl Phthalate	24. u
205-99-2	Benzobifluoranthene	10. u
207-08-9	Benzofluoranthene	
50-32-8	Benzofluoranthene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenzofluoranthene	
191-24-2	Benzofluoranthene	✓

(1): Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23612

Sample Number
TBLK 791
Reagent Blank

Organics Analysis Data Sheet
(Page 3)

685

Pesticide/PCBs

Concentration Low Medium (Circle One) X

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/22-29/86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1-10-86

Continuous Liquid-Liquid Extraction ☐ Yes

Conc Dil Factor 1,420

Percent Moisture (decanted) _____

CAS Number		^{ng} ug/100ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-3	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
50-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	<u>X</u>
8001-35-2	Toxaphene	1000.U
12674-11-2	Aroclor-1016	500.U
11104-28-2	Aroclor-1221	500.U
11141-16-5	Aroclor-1232	500.U
53469-21-9	Aroclor-1242	500.U
12672-29-8	Aroclor-1248	500.U
11097-69-1	Aroclor-1254	1000.U
11056-82-5	Aroclor-1260	1000.U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000ul V_t 5ul

* modified prep - see narrative

Sample Number
XAD Blank

Organics Analysis Data Sheet (Page 1)

Laboratory Name: ITAS-Knoxville
Lab Sample ID No: AA-6487
Sample Matrix: Solvent-Resin
Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
QC Report No: _____
Contract No: _____
Data Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: _____

Conc/Dil Factor: _____ pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
109-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

0952

Laboratory Name ITAS-KNOXVILLECase No: EGG 23612Sample Number
XAD BlankOrganics Analysis Data Sheet
(Page 2)

AA6487

2

AA6487D2 *

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: _____

Date Analyzed: 1-12-87Conc/Dil Factor: 10 : 1Percent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☐ YesContinuous Liquid - Liquid Extraction Yes NA

CAS Number	Compound	ug/l or ug/g (Circle One)
108-95-2	Phenol	10. u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
521-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	✓
91-20-3	Naphthalene	66.
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorocyclopentadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-5	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
98-06-2	2,4,6-Trichlorophenol	✓
35-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
83-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/l or ug/g (Circle One)
33-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
24-86-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-85-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
24-74-2	Di-n-Butylphthalate	2. J
205-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
35-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	20. u
55-55-3	Benzoxalanthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	15.
213-01-9	Chrysene	10. u
117-84-0	Di-n-Octyl Phthalate	510. *
205-99-2	Benzobifluoranthene	10. u
207-08-9	Benzokifluoranthene	
50-32-8	BenzoxalPyrene	
133-39-5	Indenol, 2,3-diPyrene	
53-70-3	Dibenz(a,h)Anthracene	
131-24-2	Benzodg h iPerylene	✓

(1) Cannot be separated from diphenylamine

* DATA TAKEN FROM DILUTION RUN -
WTK 1-18-87Form 1
927

7.85

Laboratory Name ITAS Knoxville
Case No EGG 23612

Sample Number
XAD BLANK

Organics Analysis Data Sheet
(Page 3)

0954

Pesticide/PCBs

Concentration Low Medium (Circle One) * GPC Cleanup ☐ Yes ☒ No
Date Extracted/Prepared 12/22-29/86 Separatory Funnel Extraction ☐ Yes
Date Analyzed 1-10, 11-87 Continuous Liquid - Liquid Extraction ☐ Yes
Conc (Dil Factor) 1/5, 1/20, 1/200
Percent Moisture (decanted) _____

CAS Number		^{ng} ug/liter or ug/g (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1100.0
12674-11-2	Aroclor-1016	500.0
11104-28-2	Aroclor-1221	9400.0
11141-16-5	Aroclor-1232	500.0
53469-21-9	Aroclor-1242	500.0
12672-29-6	Aroclor-1248	500.0
11097-89-1	Aroclor-1254	1000.0
11096-82-5	Aroclor-1260	1000.0

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000.0 V_t 5.0
* modified prep - see narrative

Sample Number

FS-1 GC

#5

Organics Analysis Data Sheet
(Page 1)

00604

Laboratory Name: ITAS - Knoxville
 Lab Sample ID No: HA S894ms
 Sample Matrix: Feed storage
 Data Release Authorized By: W. Z. Wilson

Case No: EGG 23550
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1/1

Date Analyzed: _____

Conc/Dil Factor: _____ pH 11Percent Moisture: (Not Decanted) 7.3

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	<u>1/1</u>
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	<u>1/1</u>

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	<u>1/1</u>
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	<u>1/1</u>

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit,
 report the value

U Indicates compound was analyzed for but not detected. Report the
 minimum detection limit for the sample with the U (e.g., 10U) based
 on necessary concentration/dilution action. (This is not necessarily
 the instrument detection limit.) The footnote should read: U-
 Compound was analyzed for but not detected. The number is the
 minimum attainable detection limit for the sample.

J Indicates an estimation value. This flag is used either when
 estimating a concentration for tentatively identified compounds
 where a 1:1 response is assumed or when the mass spectral data
 indicated the presence of a compound that meets the identification
 criteria but the result is less than the specified detection limit but
 greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a
 concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has
 been confirmed by GC-MS. Single component pesticides ≥ 10
 ng/g in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a
 sample. It indicates possible, probable, or definite contamination and
 warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define
 the results. If used, they must be fully described and such description
 attached to the data summary report.

929

Form I

11/85

Laboratory Name ITAS-KNOXVILLECase No EGG 23550

Sample Number

RS-1 QC

MS

AA5894MSOrganics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

00605

Concentration: Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-15-86Separatory Funnel Extraction ☐ Yes ☒ NADate Analyzed 1-9-87Continuous Liquid-Liquid Extraction ☐ Yes ☒ NAConc/Dil Factor: (0.030 kg/2.0ml) 0.9266Percent Moisture (Decanted) NA

< > = matrix spike

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 1500
111-44-4	bis(2-Chloroethoxy)Ether	660.4
95-57-8	2-Chlorophenol	< 1300
541-73-1	1,3-Dichlorobenzene	660.4
105-46-7	1,4-Dichlorobenzene	< 950
100-51-6	Benzyl Alcohol	660.4
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39539-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methoxyphenol	< 490
621-64-7	N-Nitroso-Di-n-Propylamine	660.4
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethoxyphenol	
65-85-0	Benzoic Acid	3200.4
111-91-1	bis(2-Chloroethoxy)Methane	660.4
120-83-2	2,4-Dichlorophenol	660.4
120-82-1	1,2,4-Trichlorobenzene	< 890
91-20-3	Naphthalene	660.4
105-47-8	4-Chloroaniline	
87-68-3	Hexachlorocyclopentadiene	< 1700
59-50-7	4-Chloro-3-Methoxyphenol	660.4
91-57-6	2-Methylnaphthalene	660.4
77-47-4	Hexachlorocyclopentadiene	660.4
88-06-2	2,4,6-Trichlorophenol	660.4
95-95-4	2,4,5-Trichlorophenol	660.4
91-58-7	2-Chloronaphthalene	660.4
88-74-4	2-Nitroaniline	3200.4
131-11-3	Dimethyl Phthalate	660.4
208-95-8	Acenaphthylene	660.4
99-09-2	3-Nitroaniline	3200.4

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 940
51-28-5	2,4-Dinitrophenol	3200.4
100-02-7	4-Nitrophenol	< 550
132-64-9	Dibenzofuran	660.4
121-14-2	2,4-Dinitrotoluene	< 790
606-20-2	2,6-Dinitrotoluene	660.4
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
56-73-7	Fluorene	< 490
100-01-6	4-Nitroaniline	3200.4
534-52-1	4,6-Dinitro-2-Methoxyphenol	3200.4
85-30-6	N-Nitrosodiphenylamine (1)	660.4
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	< 490
87-85-5	Pentachlorophenol	< 140.7
85-01-8	Phenanthrene	660.4
120-12-7	Anthracene	660.4
84-74-2	Di-n-Butylphthalate	4700.13
206-44-0	Fluoranthene	660.4
129-00-0	Pyrene	< 1300
35-68-7	Butylbenzylphthalate	660.4
91-94-1	3,3'-Dichlorobenzidine (1)	1300.4
56-55-3	Benz[a]Anthracene	660.4
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz[b]Fluoranthene	
207-08-9	Benz[k]Fluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benz[a,h]Perylene	< 490

(1) Cannot be separated from diphenylamine

Sample Number

FS-1GC

MSD

Organics Analysis Data Sheet
(Page 1)

00618

Laboratory Name: ITAS - KnoxvilleCase No: EGG 23550Lab Sample ID No: AA5895 MSD

QC Report No: _____

Sample Matrix: Feed stock

Contract No: _____

Data Release Authorized By: W.P. WilsonDate Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1/1

Date Analyzed: _____

Conc/Dil Factor: _____ pH 11Percent Moisture: (Not Decanted) 7.3

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	<u>11</u>
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	<u>✓</u>

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	<u>11</u>
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	<u>✓</u>

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

- C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng-µl in the final extract should be confirmed by GC-MS.
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

931

Form 1

11/25

Laboratory Name ITAS-KNOXVILLECase No EGG 33550Sample Number
FS-1 QCOrganics Analysis Data Sheet
(Page 2)AA5895MSD

Semivolatile Compounds

00619

Concentration: Low Medium (Circle One)GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12-15-86Separatory Funnel Extraction ☒ Yes ☐ NoDate Analyzed 1-9-87Continuous Liquid - Liquid Extraction ☒ Yes ☐ NoConc/Dil Factor: (0.03003 Kg / 2.0ml) 0.9266Percent Moisture (Decanted) NADryum
Factor

< > = matrix spike duplicate

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 1500.
111-44-4	bis(2-Chloroethoxy)Ether	660. u
95-57-8	2-Chlorophenol	< 1800.
541-73-1	1,3-Dichlorobenzene	660. u
105-46-7	1,4-Dichlorobenzene	< 950.
100-51-6	Benzyl Alcohol	660. u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39538-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methoxyphenol	✓
621-64-7	N-Nitroso-Di-n-Propylamine	< 400.
67-72-1	Hexachloroethane	660. u
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethoxyphenol	✓
65-65-0	Benzoic Acid	3200. u
111-91-1	bis(2-Chloroethoxy)Methane	660. u
120-83-2	2,4-Dichlorophenol	660. u
120-82-1	1,2,4-Trichlorobenzene	< 890.
91-20-3	Naphthalene	660. u
106-47-8	4-Chloroaniline	
87-68-2	Hexachlorobutadiene	✓
59-50-7	4-Chloro-3-Methoxyphenol	< 1500.
91-57-6	2-Methylnaphthalene	660. u
77-47-4	Hexachlorocyclopentadiene	660. u
88-06-2	2,4,6-Trichlorophenol	660. u
95-95-4	2,4,5-Trichlorophenol	1300. u
91-58-7	2-Chloronaphthalene	660. u
88-74-4	2-Nitroaniline	3200. u
131-11-3	Dimethyl Phthalate	660. u
208-95-8	Acenaphthylene	660. u
99-09-2	3-Nitroaniline	3200. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 930.
51-28-5	2,4-Dinitrophenol	3200. u
100-02-7	4-Nitrophenol	< 700.
132-64-9	Dibenzofuran	660. u
121-14-2	2,4-Dinitrotoluene	< 790.
606-20-2	2,6-Dinitrotoluene	660. u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	3200. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	660. u
86-30-6	N-Nitrosodiphenylamine (1)	
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	< 110. J
85-01-8	Phenanthrene	660. u
120-12-7	Anthracene	660. u
34-74-2	Di-n-Butylphthalate	3200. u
205-44-0	Fluoranthene	660. u
129-00-0	Pyrene	< 1100.
85-68-7	Butylbenzylphthalate	660. u
91-94-1	3,3'-Dichlorobenzidine	1300. u
56-55-3	Benz[a]Anthracene	660. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz[b]Fluoranthene	
207-08-9	Benz[k]Fluoranthene	
50-32-8	Benz[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
53-70-3	Dibenz[ah]Anthracene	
191-24-2	Benz[ghi]Perylene	✓

(1) Cannot be separated from diphenylamine

Organics Analysis Data Sheet
(Page 1)

Sample Number
AD-5MS

AA6418MS 00501

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA6418MS
Sample Matrix: Ash
Data Release Authorized By: W-T. Wilson

Case No: EGG-23609
QC Report No: _____
Contract No: _____
Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: NA
Date Analyzed: NA
Conc/Dil Factor: NA pH _____
Percent Moisture: (Not Decanted) 22.8

**NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER**

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
55-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10051-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Guidelines

For reporting results to EPA, the following results notations are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | |
|--|---|
| <p>Value If the result is a value greater than or equal to the detection limit, report the value.</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/l in the final extract should be confirmed by GC/MS.</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible proton beam contamination and warns the data user to take appropriate action.</p> <p>Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.</p> |
|--|---|

Laboratory Name I.T.A.S. - KNOXVILLECase No: EGC-22609

Sample Number

AD-5 MSAA6413MSOrganics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

00562

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 12-22-86Date Analyzed: 1-10-87Conc/Dil Factor: (0.03017 kg / 1.0 ml) 0.7720Percent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☐ Yes ☒ NAContinuous Liquid - Liquid Extraction ☐ Yes ☒ NA

< > = matrix spike

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 1700. >
111-44-4	bis(2-Chloroethyl)Ether	330. u
95-57-8	2-Chlorophenol	< 1700. >
541-73-1	1,3-Dichlorobenzene	330. u
106-46-7	1,4-Dichlorobenzene	< 1000. >
100-51-6	Benzyl Alcohol	330. u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methoxyphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	< 480. >
67-72-1	Hexachloroethane	330. u
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethoxyphenol	
65-85-0	Benzoic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	330. u
120-82-1	1,2,4-Trichlorobenzene	< 1100. >
91-20-3	Naphthalene	330. u
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methoxyphenol	< 1800. >
91-57-6	2-Methylnaphthalene	330. u
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	2-Nitroaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
208-95-8	Acenaphthylene	330. u
39-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 1100. >
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	< 1000. >
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	< 770. >
606-20-2	2,6-Dinitrotoluene	330. u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorobenzyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	1600. u
85-30-5	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-85-5	Pentachlorophenol	< 2100. >
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	70. JB
206-44-0	Fluoranthene	330. u
129-00-0	Pyrene	< 730. >
85-68-7	Butylbenzylphthalate	330. u
91-94-1	3,3'-Dichlorobenzidine	660. u
56-55-3	Benzo(a)Anthracene	330. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	

(1)-Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23609

Sample Number
AD-5 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00504

Concentration Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12-22-86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1-10-11-87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc/Dil Factor 1/5

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
53-89-3	Gamma-BHC (Lindane)	
78-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-25-2	Toxaphene	210.00
12374-11-2	Aroclor-1013	100.0
11104-23-2	Aroclor-1221	100.0
11141-18-5	Aroclor-1232	100.0
53469-21-9	Aroclor-1242	100.0
12372-23-8	Aroclor-1248	100.0
11037-13-1	Aroclor-1254	210.00
11035-02-5	Aroclor-1260	320. S

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ $\times W_s$ 30.17g V_i 20000 ul V_t 500.2 ul
S - spiked compound

Organics Analysis Data Sheet
(Page 1)

Sample Number
AD-5 MSD

AA6419MSD

00584

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA6419MSD
Sample Matrix: Ash
Data Release Authorized By: W.T. Wilson

Case No: EGG 23607
QC Report No: _____
Contract No: _____
Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) 22.8

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	↓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	↓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 2 ug/l is calculated, report as 2J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Sample component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible non-site blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name J.T.A.S. - KNOXVILLECase No: EGG 23609Sample Number
AD-5 MSDAA6419MSDOrganics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

00505

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 12-22-86Date Analyzed: 1-10-87Conc/Dil Factor: (0.03031 kg / 1.0 ml) 0.7720Percent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☒ Yes ☐ NoContinuous Liquid - Liquid Extraction ☒ Yes ☐ No

< > = matrix spike duplicate

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 2300. >
111-44-4	bis(2-Chloroethoxy)Ether	330. u
95-57-2	2-Chlorophenol	< 2050. >
541-73-1	1,3-Dichlorobenzene	330. u
105-46-7	1,4-Dichlorobenzene	< 1200. >
100-51-6	Benzyl Alcohol	330. u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39635-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methylphenol	✓
621-64-7	N-Nitroso-Di-n-Propylamine	< 530. >
67-72-1	Hexachlorocyclopentadiene	330. u
98-95-3	Nitrobenzene	
78-53-1	Isonitrobenzene	
98-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzic Acid	1600. u
111-91-1	bis(2-Chloroethoxy)Methane	330. u
120-83-2	2,4-Dichlorophenol	330. u
120-82-1	1,2,4-Trichlorobenzene	< 1300. >
91-20-3	Naphthalene	330. u
106-47-6	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	✓
59-50-7	4-Chloro-3-Methylphenol	< 1000. >
91-57-6	2-Methylnaphthalene	330. u
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	1600. u
91-58-7	2-Chloronaphthalene	330. u
88-74-4	Dimethylaniline	1600. u
131-11-3	Dimethyl Phthalate	330. u
209-95-8	Acenaphthylene	330. u
99-09-2	3-Nitroaniline	1600. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 1300. >
51-28-5	2,4-Dinitrophenol	1600. u
100-02-7	4-Nitrophenol	< 1200. >
132-64-9	Dibenzofuran	330. u
121-14-2	2,4-Dinitrotoluene	< 910. >
806-20-2	2,6-Dinitrotoluene	330. u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	1600. u
534-52-1	4,6-Dinitro-2-Methylphenol	1600. u
82-30-6	N-Nitrosodiphenylamine (1)	330. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	< 2600. >
85-01-8	Phenanthrene	330. u
120-12-7	Anthracene	330. u
84-74-2	Di-n-Butylphthalate	57.73
205-44-0	Fluoranthene	330. u
129-00-0	Pyrene	< 820. >
35-68-7	Butylbenzylphthalate	330. u
91-94-1	3,3'-Dichlorobenzidine	660. u
55-55-3	Benzofluoranthene	330. u
117-61-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzofluoranthene	
207-09-9	Benzofluoranthene	
50-32-8	Benzofluoranthene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzofluoranthene	✓

(1) Cannot be separated from diphenylamine

Laboratory Name ITAS Knoxville
Case No EGG 23609

Sample Number
AD-5 MSD

Organics Analysis Data Sheet
(Page 3)

00587

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-22-86
Date Analyzed 1-10, 11-87
Conc Dil Factor 1/5
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
80-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-3	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlorfane	✓
8001-35-2	Toxaphene	210.04
12674-11-2	Aroclor-1016	100.0
11104-23-2	Aroclor-1221	100.0
11141-18-5	Aroclor-1232	100.0
53463-21-9	Aroclor-1242	100.0
12672-29-5	Aroclor-1248	100.0
11037-13-1	Aroclor-1254	210.04
11035-32-5	Aroclor-1260	910.0 S

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.31g V_i 20000ul V_t 5ul, 2ul
S - spiked compound

Sample Number
WB1 45

Organics Analysis Data Sheet
(Page 1)

0312

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA 6470 MSRP
Sample Matrix: WATER
Data Release Authorized By: W.T. Wiland

Case No: EGG 23610
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-96

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILES
FOR THIS
SAMPLE

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
109-05-4	Vinyl Acetate	
75-27-	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results conventions are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 2 ug/l is calculated, report as 2U.

- C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- S This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such descriptions attached to the data summary report.

Laboratory Name I.T.A.S. - KNOXVILLE
Case No: EGG 23610

0313

Sample Number
WB1 MS

AA6470MSRP

Organics Analysis Data Sheet
(Page 2)

Semivolatiles Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 1-15-87
Date Analyzed: 1-17-87
Conc/Dil Factor: 0.5L / 2.0 ml
Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☒ Yes ☐ No

< > = Matrix spike

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 62. >
111-44-4	bis(2-Chloroethyl)Ether	10. u
95-57-8	2-Chlorophenol	< 150. >
541-73-1	1,3-Dichlorobenzene	10. u
105-46-7	1,4-Dichlorobenzene	< 82. >
100-51-6	Benzyl Alcohol	10. u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	↓
621-64-7	N-Nitroso-Di-n-Propylamine	< 48. >
67-72-1	Hexachlorobutadiene	10. u
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	↓
65-85-0	Benzic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	10. u
120-82-1	1,2,4-Trichlorobenzene	< 86. >
91-20-3	Naphthalene	10. u
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	↓
59-50-7	4-Chloro-3-Methylphenol	< 53. >
91-57-6	2-Methylnaphthalene	10. u
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	↓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-96-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 110. >
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	< 69. >
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	< 75. >
805-20-2	2,6-Dinitrotoluene	10. u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
85-73-7	Fluorene	↓
100-01-8	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	10. u
86-30-6	N-Nitrosodiphenylamine (1)	6. u
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	15. u
87-86-5	Pentachlorophenol	< 120. >
95-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
205-44-0	Fluoranthene	↓
129-00-0	Pyrene	< 59. >
85-68-7	Butylbenzylphthalate	10. u
91-94-1	3,3'-Dichlorobenzidine	20. u
56-55-3	Benz(a)Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benz(b)Fluoranthene	
207-08-9	Benz(k)Fluoranthene	
50-32-8	Benz(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benz(a,h,i)Perylene	↓

(1): Cannot be separated from diphenylamine

Organics Analysis Data Sheet
(Page 1)

0336
WBI ASD
AA6470 MSD RP

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA6470 MSDRP
Sample Matrix: WATER
Data Release Authorized By: W.T. Wilson

Case No: EGG 23610
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: NA
Date Analyzed: NA
Conc/Dil Factor: NA pH _____
Percent Moisture: (Not Decanted) _____

NO VOLATILES
FOR THIS
SAMPLE

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-07-5	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromofom	
100-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results conventions are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be exact.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as JJ.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

0337

Laboratory Name I.T.A.S. - KNOXVILLECase No: E-G 23610

Sample Number

WBI MSD

AA6470MSDR1

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 1-15-87Date Analyzed: 1-17-87Conc/Dil Factor: 0.5L / 2.0 mlPercent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☒ YesContinuous Liquid - Liquid Extraction ☒ Yes/NA

< > = Matrix spike duplicate

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	< 74. >
111-44-4	bis(2-Chloroethyl)Ether	10. u
95-57-8	2-Chlorophenol	< 180. >
541-73-1	1,3-Dichlorobenzene	10. u
106-46-7	1,4-Dichlorobenzene	< 96. >
100-51-6	Benzyl Alcohol	10. u
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	✓
621-64-7	N-Nitroso-Di-n-Propylamine	< 61. >
67-72-1	Hexachloroethane	10. u
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	50. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	10. u
120-82-1	1,2,4-Trichlorobenzene	< 95. >
91-20-3	Naphthalene	10. u
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	✓
59-50-7	4-Chloro-3-Methylphenol	< 100. >
91-57-6	2-Methylnaphthalene	10. u
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	10. u
208-96-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	< 110. >
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	< 34. >
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	< 92. >
606-20-2	2,5-Dinitrotoluene	10. u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	✓
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	10. u
85-30-6	N-Nitrosodiphenylamine (1)	7. J
101-55-3	4-Bromophenyl-phenylether	10. u
118-74-1	Hexachlorobenzene	10. u
87-86-5	Pentachlorophenol	< 200. >
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	✓
129-00-0	Pyrene	< 98. >
85-68-7	Butylbenzylphthalate	10. u
91-94-1	3,3'-Dichlorobenzidine	20. u
55-55-3	Benzoxanthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzoxylfluoranthene	
207-08-9	Benzoxylfluoranthene	
50-32-8	Benzoxylpyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benz(a,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

Sample Number

POTW MS

Organics Analysis Data Sheet
(Page 1)

0302

Laboratory Name: ITAS - Knoxville
 Lab Sample ID No: 0696 S1
 Sample Matrix: water
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23610
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: _____

Conc/Dil Factor: _____ pH NAPercent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	<u>NA</u>
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	<u>✓</u>

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	<u>NA</u>
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromolorm	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	<u>✓</u>

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

- U** If the result is a value greater than or equal to the detection limit, report the value.
- D** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

943

Form I

11/85

Laboratory Name ITAS Knoxville
Case No EGG 23610

0303

Sample Number
POTW MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12-21-86
Date Analyzed 1-9, 12-87
Conc Dil Factor 1/20
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		<u>ug/L</u> or <u>ug/Kg</u> (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-3	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-35-2	Toxaphene	1.0u
12674-11-2	Aroclor-1016	0.5u
11104-28-2	Aroclor-1221	0.5u
11141-16-5	Aroclor-1232	0.5u
53469-21-9	Aroclor-1242	0.5u
12672-29-8	Aroclor-1248	0.5u
11097-39-1	Aroclor-1254	1.0u
11096-82-5	Aroclor-1260	1.0u S

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500 uL or W_s _____ V_i 10000 uL V_t 5 uL, 2 uL
S-spiked compound

Sample Number
POTW MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - Knoxville
Lab Sample ID No: 0697 SZ
Sample Matrix: Water
Data Release Authorized By: W.T. Wilson

Case No: EGG 23610
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: _____

Conc/Dil Factor: _____ pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10051-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10051-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/g in the final extract should be confirmed by GC/MS.

S This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

0327

Laboratory Name ITAS Knoxville
 Case No EAG 23610

Sample Number
POTW MSD

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 12-21-86
 Date Analyzed 1-9-87
 Conc Dil Factor 1/20
 Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☒ Yes
 Continuous Liquid-Liquid Extraction ☐ Yes

CAS Number		<u>ug/L</u> or <u>ug/Kg</u> (Circle One)
319-84-6	Alpha-BHC	N/A
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1.0U
12674-11-2	Aroclor-1016	0.5U
11104-23-2	Aroclor-1221	0.5U
11141-18-5	Aroclor-1232	0.5U
83489-21-9	Aroclor-1242	0.5U
12372-29-6	Aroclor-1248	0.5U
11037-43-1	Aroclor-1254	1.0U
11093-82-5	Aroclor-1260	210. S

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500 ml or W_s _____ V_i 10000 ul V_t 5 ml, 2 ml
 S-spiked compound

Toxaphene/PCB's/Herbicides Analysis Data Summary

Toxaphene/PCB Analysis Data Summary

EGG 23548

Linearity of toxaphene and Aroclor 1016/1260 mix was run at the beginning of the run. Eval B was run at the beginning and after the fifth sample of the run to check for column degradation. The medium level Aroclor 1016/1260 standard and the medium level toxaphene standard were run at the end.

The OADS page 1 was marked NA in the spaces for the single peak pesticides and for chlordane. Analysis of these compounds was not requested and therefore no analysis was performed.

EGG 23549

No method QC samples were prepped with this project.

The samples were composites of stack samples. The units reported were total nanograms (ng). The detection limits were either calculated values or calculated from water CRDLs.

No surrogate was added to these samples.

Samples were analyzed for toxaphene and all the HSL aroclors. The remaining cpds on the HSL pesticide list were marked NA on all OADS report forms (Form 1, p. 3) since there was no request for analysis for these compounds.

EGG 23550

There was an extra blank for the pesticide/PCB samples - a sulfur cleanup blank. Only 3 of the 6 soil samples needed sulfur cleanup so a sulfur blank was added (MBZ).

Analysis for the single peak pesticides and chlordane was not requested and therefore not performed. The corresponding blanks on the OADS form 1, p. 3 have been marked NA.

No spikes were prepped with this project.

EGG 23609

Samples were analyzed for toxaphene and all the HSL aroclors. The remaining cpds on the HSL pesticide list were marked NA on all OADS report forms (Form 1, p. 3) since there was no request for analysis for these compounds.

The spiked samples were spiked with a 100 ppm Aroclor 1260 standard.

EGG 23610

Analysis was done for Toxaphene and the HSL aroclors only. All other compounds were marked NA on the OADS report sheet (Form 1, p. 3) since their analysis was not requested.

The spiked samples POTW-MS and POTW-MSD were spiked with 1.0 ml of a 100 ppm Aroclor 1260 standard.

EGG 23612

No method QC samples were prepped with this project.

The samples were composites of stack samples. The units reported were total nanograms (ng). The detection limits were either calculated values or calculated back from water CRDL's.

No surrogate was added to the samples.

Analysis for single peak pesticides and chlordane was not requested and therefore not performed. These were marked NA on the OADS report sheet (Form I, p. 3) with an NA.

For laboratory data sheets, see Page 3 in the BNA laboratory data set, Exhibit 4.

Herbicide Analysis Data Summary

The detection limits for soil samples was increased due to matrix interferences. The low level soil and water samples were reprepared in an effort to eliminate these interferences. The interference was determined to be from two different sources. Glassware used to prep the soil samples was found to cause interference due to some sort of residue present. This exhibited itself as a large solvent type peak at the beginning of the chromatograms. The second source of interference was the feed stock samples themselves. These samples contained such high levels of herbicide that any glassware used to prep them exhibited carryover even after the glassware was washed and solvent rinsed. The carryover problem was solved by acid washing, high temperature annealing, and additional solvent rinsing.

Laboratory ID: ITAS Knoxville
Case: EG&G
Concentration Units: ug/kg

Pesticide/PCB/Herbicide Data Summary
Feed Stock Samples

Analyte	FS-1	FS-2	FS-3	FS-5	FS-6
TOXAPHENE	170.0 U	180.0 U	170.0 U	320.0 U	320.0 U
PCB 1016	86.0 U	88.0 U	87.0 U	110.0 U	110.0 U
PCB 1221	86.0 U	88.0 U	87.0 U	680.0 U	690.0 U
PCB 1232	86.0 U	88.0 U	87.0 U	87.0 U	88.0 U
PCB 1242	86.0 U	88.0 U	87.0 U	87.0 U	88.0 U
PCB 1248	86.0 U	88.0 U	87.0 U	94.0 U	95.0 U
PCB 1254	170.0 U	180.0 U	170.0 U	170.0 U	170.0 U
PCB 1260	170.0 U	180.0 U	170.0 U	270.0 U	280.0 U
2,4-D	56000.0	330000.0	120000.0	23000.0	400000.0
2,4,5-T	100000.0	510000.0	220000.0	47000.0	840000.0

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EGI
Concentration Units: ug/kg

Pesticide/PCB/Herbicide Data Summary
Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6	BS-1
TOXAPHENZ	200.0 U	210.0 U	210.0 U	210.0 U	210.0 U	170.0 U
PCB 1016	98.0 U	110.0 U	100.0 U	100.0 U	110.0 U	87.0 U
PCB 1221	98.0 U	110.0 U	100.0 U	100.0 U	110.0 U	87.0 U
PCB 1232	98.0 U	110.0 U	100.0 U	100.0 U	110.0 U	87.0 U
PCB 1242	98.0 U	110.0 U	100.0 U	100.0 U	110.0 U	87.0 U
PCB 1249	98.0 U	110.0 U	100.0 U	100.0 U	110.0 U	87.0 U
PCB 1254	200.0 J	210.0 U	210.0 U	210.0 U	210.0 U	170.0 U
PCB 1260	200.0 U	210.0 U	210.0 U	210.0 U	210.0 U	170.0 U
2,4-D	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
2,4,5-T	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EC&G
Concentration Units: ug/L

Pesticide/PCB/Herbicide Data Summary
Water Samples

Analyte	ENT-B	ENT-1	ENT-2	ENT-5	ENT-6	POTW	WB1	CW
TOXAPHENZ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB 1016	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1221	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1232	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1242	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCB 1254	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCB 1260	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4-D	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-T	0.1 U	0.8 U	1.7 U	2.0 U	0.1 U	0.1 U	0.1 U	0.1 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: ECIG
Concentration Units: ng

Pesticide/PCB/Herbicide Data Summary
Stack Samples

Analyte	VB-1-XAD	VB-2-XAD	VB-3-XAD	VB-5-XAD	VB-6-XAD	XAD Blk	TBlk 791
TOXAPHENE	1100.0 U	1100.0 U	1100.0 U	4400.0 U	2200.0 U	1100.0 U	1000.0 U
PCB 1016	500.0 U	500.0 U	500.0 U	1500.0 U	750.0 U	500.0 U	500.0 U
PCB 1221	9400.0 U	9400.0 U	9400.0 U	9400.0 U	9400.0 U	9400.0 U	500.0 U
PCB 1232	500.0 U	500.0 U	500.0 U	1000.0 U	510.0 U	500.0 U	500.0 U
PCB 1242	500.0 U	500.0 U	500.0 U	500.0 U	500.0 U	500.0 U	500.0 U
PCB 1248	500.0 U	500.0 U	500.0 U	1300.0 U	650.0 U	500.0 U	500.0 U
PCB 1254	1000.0 U	1000.0 U	1000.0 U	1000.0 U	1000.0 U	1000.0 U	1000.0 U
PCB 1260	1000.0 U	1000.0 U	1000.0 U	3000.0 U	1900.0 U	1000.0 U	1000.0 U
2,4-D	1.0 U	1.0 U	1.2 U	2.0 U	1.0 U	1.0 U	1.0 U
2,4,5-T	0.3 U	0.1 U	0.7 U	0.5 U	0.3 U	0.1 U	0.1 U

* - Concentration Units: ug

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: IAS Knoxville
Case: E01G
Concentration Units: ug

Pesticide/PCB/Herbicide Data Summary
Filter Samples

Analyte	14820	14821	14822	14749	17962	17963	17964	17966	17967	17968
2,4-D	2.3	1.0 U	1.0 U	1.2	1.0 U	2.3	1.0 U	1.0 U	1.0 U	1.0 U
2,4,5-T	11.0	0.3 U	1.7	2.3	0.2	4.8	0.1 U	1.1	0.1	0.1 U

U - Not Detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory Name ITAS - Knoxville
Case No EGG 23550

Sample Number
FS-1

Organics Analysis Data Sheet
(Page 3)

040

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/8, 9/87
Conc (Dil Factor) 1/10, 20, 1/100000
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1923-38-7	2,4-D M.E.	56000.
	2,4,5-T M.E.	100000.

V_i = Volume of extract injected (ul)
V_s = Volume of water extracted (ml)
W_s = Weight of sample extracted (g)
V_t = Volume of total extract (ul)

V_s _____ or W_s 50.03 g V_i 5000 ul V_t 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGC 23550

Sample Number
FS-2

Organics Analysis Data Sheet
(Page 3)

059

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extrated/Prepared 12/17/86
Date Analyzed 1/9/87
Conc (Oil Factor) 1/100000 1/200000
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	3300000
	2,4,5-T M.E.	510000

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_2 = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_1 _____ or W_1 50 g V_2 5000 ul V_t 2 ul
* Modified prep; see narration.

Laboratory Name ITAS - Knoxville
Case No EGG-23550

074

Sample Number
FS-3

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared: 12/17/86

Separatory Funnel Extraction ☐ Yes

Date Analyzed: 1/8, 9/87

Continuous Liquid-Liquid Extraction ☐ Yes

Conc Dil Factor 1/10000 1/100000

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	120000.
	2,4,5-T M.E.	220000.

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_1 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_1 _____ or W_1 50.48g V_2 5000 ul V_1 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23609

Sample Number
FS-5

Organics Analysis Data Sheet
(Page 3)

050

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/22/86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1/9, 10/87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc Dil Factor 1/10000 1/50000

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-33-7	2,4-D M.E.	23000.
	2,4,5-T M.E.	47000.

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_2 = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_1 _____ V_t _____

*. Modified prep; see narrative.

Laboratory Name HAZ - Knoxville
Case No EEG 23609

1
AS-6

Organics Analysis Data Sheet
(Page 3)

000

Pesticides/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86
Date Analyzed 1/9/87
Conc (Dil Factor) 150000, 150000
Percent Moisture (Gocanted) _____

GPC Cleanup ☒ Yes ☐ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

mg/L 1000
(Circle One)

1920-38-7	2,4-D M.E.	500000
	2,4,5-T M.E.	200000

V_1 = Volume of extract removed (ml)

V_2 = Volume of water removed (ml)

W_2 = Weight of water removed (g)

V_1 = Volume of total extract (ml)

V_2 _____ or W_1 50.87g V_1 500000 V_2 200000
* Modified prop; see instruction.

Laboratory Name ITAS - Knoxville
Case No 666 23550

Sample Number
A0-1

Organics Analysis Data Sheet
(Page 3)

04

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared: 12/17/86 1/18/87

Separatory Funnel Extraction ☐ Yes

Date Analyzed: 1/17/87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc Dil Factor 1 1/2

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	< 20 U
	2,4,5-T M.E.	< 2 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ W_s 50 g V_i 5000 ul V_t 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No FGG 23550

Sample Number
AD-2

Organics Analysis Data Sheet
(Page 3)

016

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/17/86 + 1/16/87

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1/17/87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc (Oil Factor) 1 1/2

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-33-7	2,4-D H.E.	< 20 U
	2,4,5-T H.E.	< 2 U

V₁ = Volume of extract injected (ul)

V₂ = Volume of water extracted (ml)

W₁ = Weight of sample extracted (g)

V₃ = Volume of total extract (ul)

V₁ _____ or W₁ 50.26g V₂ 5000ul V₃ 2ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23550

Sample Number
AD-3

Organics Analysis Data Sheet
(Page 3)

028

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/17/86 + 1/16/87
Date Analyzed 1/17/87
Conc (Oil Factor) 1 1/2
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 20 U
	2,4,5-T M.E.	< 2 U

V₁ = Volume of extract injected (ul)
V₂ = Volume of extract extracted (ml)
W₁ = Weight of sample extracted (g)
V₁ = Volume of total extract (ul)

V₁ _____ or W₁ 50.43g V₂ 5000 ul V₁ 2 ul
Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No 666 23609

013

Sample Number
A0-5

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup ☐ Yes ☒ No
Date Extracted/Prepared 12/22/86 + 1/16/87 Separatory Funnel Extraction ☐ Yes
Date Analyzed 1/17/87 Continuous Liquid - Liquid Extraction ☐ Yes
Conc (Dil Factor) 1, 1/2
Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 20. U
	2,4,5-T M.E.	< 2. U

V₁ = Volume of extract injected (ul)
V₂ = Volume of water extracted (ml)
W₂ = Weight of sample extracted (g)
V₁ = Volume of total extract (ul)

V₂ _____ or W₂ 50.283 V₁ 5000 ul V₁ 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23609

Sample Number
AD-6

Organics Analysis Data Sheet
(Page 3)

025

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86 + 1/16/87
Date Analyzed 1/17/87
Conc (Oil Factor) 1, 1/2
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 2.0 U
	2,4,5-T M.E.	< 2.0 U

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_1 _____ or W_s 50.56g V_1 5000 ul V_2 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG Z366

Sample Number
BS-1

Organics Analysis Data Sheet
(Page 3)

037

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86 1/16/87
Date Analyzed 1/17/87
Conc (Oil Factor) _____
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 20 U
	2,4,5-T M.E.	< 2 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 50.05g V_i 5000ul V_t 2ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23549

Sample Number
VB-1-F

Organics Analysis Data Sheet
(Page 3)

VB-1-XAD
VB-1-PW
VB-1-C

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/22/86
Date Analyzed: 1/10/87
Conc (Dil Factor) 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

~~00113~~
00001

CAS Number	^{mg} mg/L (Circle One)
1928-38-7	2,4-D M.E. <1.4
	2,4,5-T M.E. <1.34

V_s = Volume of extract removed (ul)
 V_w = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_t 5000ul V_w 2ul
*. Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23549

Organics Analysis Data Sheet
(Page 3)

Sample Number

VB-2-F

VB-2-XAD

VB-2-PW

VB-2-C

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

00012

Date Extracted/Prepared: 12/22/86

Separatory Funnel Extraction ☒ Yes

Date Analyzed: 1/10/11/87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc (Dil Factor) 1 1/5

Percent Moisture (decanted) _____

CAS
Number

ug/g
(Circle One)

1928-38-7	2,4-D M.E.	<u><1.0</u>
	2,4,5-T M.E.	<u><2.1</u>

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_1 50000 ul V_2 2 ul
* Modified prep; see narrative.

Laboratory Name ITAC - Knoxville
Case No E66 23549

Organics Analysis Data Sheet
(Page 3)

Sample Number
VB-3-F
VB-3-XAD
VB-3-PW
VB-3-C

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86
Date Analyzed 1/10/87
Conc (Dil Factor) 1 1/5
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No 00030
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number	mg/g or ug/g (Circle One)
1928-38-1 2,4-D H.E.	<u><1.2 U</u>
2,4,5-T H.E.	<u><0.7 U</u>

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_2 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_2 _____ or W_2 _____ V_1 5000 ul V_1 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAC - Knoxville
Case No 644-3612

Organics Analysis Data Sheet
(Page 3)

Sample Number
VB-S-F

VB-S-XAD
VB-S-PW
VB-S-C

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86
Date Analyzed 1/10/87
Conc (Dil Factor) 1 1/5
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☐ Yes

CAS
Number

yellowing
(Circle One)

6928-38-7	2,4-D M.E.	<u>2.11</u>
	2,4,5-T M.E.	<u>2.11</u>

00022

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_2 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_2 _____ or W_2 _____ V_1 50000 ul V_1 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EEG-23612

Organics Analysis Data Sheet
(Page 3)

Sample Number:
VB-6-F
VB-6-XAB
VB-6-PW
VB-6-C

Pesticide/PCBs

00038

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 10/22/86
Date Analyzed 11/10/87
Conc (Dil Factor) 1.15
Percent Moisture (decainted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

Handwritten
(Circle One)

0928-38-7	2,4-D M.E.	< 1.1
	2,4,5-T M.E.	< 1.3

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 50000 ul V_t 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23611

Sample Number
14820

Organics Analysis Data Sheet
(Page 3)

0

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23/86
Date Analyzed 1/10 11/87
Conc (Dil Factor) 1/50 1/500
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

2,4,5-T
(Circle One)

1928-38-7	2,4-D M.E.	2.3
	2,4,5-T M.E.	11

V_1 = Volume of extract injected (ul)

V_d = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ W_s _____ V_1 500 ul V_t 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E6623611

Sample Number
14821

Organics Analysis Data Sheet
(Page 3)

020

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23/76
Date Analyzed 1/10/77
Conc Dil Factor 1/10
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

mg
ug/liter of kg
(Circle One)

1928-38-7	2,4-D M.E.	41.11
	2,4,5-T M.E.	41.311

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_1 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_1 _____ or W_1 _____ V_1 2.000 V_2 2.000
* Modified pmo; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23611

Sample Number
14822

Organics Analysis Data Sheet
(Page 3)

030

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23/86
Date Analyzed 1/10/11/87
Conc (Dil Factor) 1/20
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

ug/g
mg/kg
(Circle One)

1928-33-7	2,4-D M.E.	<u><1</u>
	2,4,5-T M.E.	<u>17</u>

V₁ = Volume of extract injected (ul)

V₂ = Volume of water extracted (ml)

W₁ = Weight of sample extracted (g)

V₃ = Volume of total extract (ul)

V₁ _____ W₁ _____ V₂ 200 ul V₃ 20 ul
* - Modified prep; see narrative.

Laboratory Name ITIS - Knoxville
Case No E66 23611

Sample Number
14749

Organics Analysis Data Sheet
(Page 3)

040

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23/76
Date Analyzed 1/11/77
Conc (Dil Factor) 1/2
Percent Moisture (decahed) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

mg
spilling
(Circle One)

1923-38-7	2,4-D M.E.	1.2
	2,4,5-T M.E.	0.3

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_1 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_1 _____ V_2 _____ V_1 2000 V_2 200
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23611

Sample Number
17962

Organics Analysis Data Sheet
(Page 3)

050

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23/86
Date Analyzed 1/10, 11/87
Conc Oil Factor 1/5
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

2,4,5-T
M.E.
(Circle One)

1928-38-7	2,4,5-T M.E.	< 1 / 11
	2,4,5-T M.E.	C. 2

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_1 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_2 _____ or W_1 _____ V_1 5.00 ul V_2 2.00

* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EE 23611

Sample Number
17963

Organics Analysis Data Sheet
(Page 3)

060

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23/86
Date Analyzed 1/16/87
Conc Dil Factor 1/50
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		<u>ug</u> ug/gm or % (Circle One)
1928-38-7	2,4-D M.E.	2.3
	2,4,5-T M.E.	4.1

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s _____ W_s _____ V_i 5000 ul V_t 0 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23611

Sample Number
17964

Organics Analysis Data Sheet
(Page 3)

070

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/23/96

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1/10, 11/87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc (Dil Factor) 1/2

Percent Moisture (decanted) _____

CAS Number	2,4,5-T M.E. (Circle One)
1928-38-7	2,4-D M.E. < 1. U
	2,4,5-T M.E. < 1. U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000 ul V_t 2 ml
* Modified prep; see narrative.

17966

079

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☐ Yes
 Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number	Chemical Name	Chemical Formula
1928-33-7	2,2-D M.E.	$\text{C}_2\text{H}_4\text{Cl}_2$
	2,4,5-T M.E.	$\text{C}_6\text{H}_2\text{Cl}_3\text{O}_2$

V₃ _____ or W₃ _____ V₁ 5000 mi V₁ 2 mi
 * Modified prop; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23611

Sample Number
17967

Organics Analysis Data Sheet
(Page 3)

095

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/23/86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1/10, 11/87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc Dil Factor 1/2

Percent Moisture (decanted) _____

CAS
Number

ug
ug/gm soil
(Circle One)

1928-38-7	2,4-D M.E.	<1.0
	2,4,5-T M.E.	0.1

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 500 ul V_t 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23611

Sample Number
17968

Organics Analysis Data Sheet
(Page 3)

105

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/23/86
Date Analyzed: 1/10, 11/27
Conc Dil Factor 1/5
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

ug
g or 100 g
(Circle One)

1928-38-7	2,4-D M.E.	<u>< 1.0</u>
	2,4,5-T M.E.	<u>< 0.10</u>

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000 ul V_t 2.2 ul
*. Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23548

Sample Number
ENT-B

Organics Analysis Data Sheet
(Page 3)

00003

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/7 & 9/87
Conc/Dil Factor 1/10 1/100
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	<1 u
	2,4,5-T M.E.	<0.1 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 850 ml or W_s _____ V_i 5000 ul V_t 2 ul
*. Modified prep; see narrative.

Laboratory Name 1002 - 500XV-112
Case No E66 23548

Sample Number
ENT-1

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00019

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/7 8, 9/87
Conc (Dil Factor) 1/10, 1/100
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		<u>ug/l</u> or <u>ug/Kg</u> (Circle One)
1928-38-7	2,4-D M.E.	< 1. U
	2,4,5-T M.E.	< 0.8 U

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 5000 ul V_t 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23548

Sample Number
ENT-2

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00036

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/7, 8/27
Conc (Dil Factor) 1/10 1/100
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/L or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	<1 u
	2,4,5-T M.E.	<1.7 u

V₁ = Volume of extract injected (ul)
V₂ = Volume of water extracted (ml)
W₂ = Weight of sample extracted (g)
V₁ = Volume of total extract (ul)

V₁ 870 ml W₂ _____ V₁ 5000 ul V₁ 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EEK 23610

Sample Number
ENT-5

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00003

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/23-29/86
Date Analyzed 1/15/87
Conc (Oil Factor) 1/50 1/100
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☐ Yes

CAS Number		ug/lb or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 3. //
	2,4,5-T M.E.	< 2 //

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_2 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_2 1000 ml or W_2 _____ V_1 5000 ul V_1 2 ul
* Modified prep; see narrative.

Laboratory Name IIAS - Knoxville

Case No EGG 23610

Sample Number
ENT 6

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00019

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/22-29/86

Separatory Funnel Extraction ☒ Yes

Date Analyzed 1/15, 16, 17/87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc (Dil Factor) 1/20, 1/50

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	<1.0
	2,4,5-T M.E.	<0.10

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 500 ul V_t 2000
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EE6 73610

Sample Number
POT w

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00038

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/22-26/86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1/15, 11/87

Continuous Liquid-Liquid Extraction ☐ Yes

Conc (Dil Factor) 1

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
1928-38-7	2,4-D M.E.	< 1.11
	2,4,5-T M.E.	< 0.111

V₁ = Volume of extract injected (ul)

V₂ = Volume of water extracted (ml)

W₂ = Weight of sample extracted (g)

V₁ = Volume of total extract (ul)

V₁ 5000 ul or W₂ _____ V₁ 5000 ul V₂ 2 ml
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EES 23610

Sample Number
CW

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00047

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22-29/86
Date Analyzed 1/15/87
Conc Dil Factor 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
1928-38-7	2,4-D H.E.	<1.0
	2,4,5-T H.E.	<1.0

V₁ = Volume of extract injected (ul)
V₂ = Volume of water extracted (ml)
W₁ = Weight of sample extracted (g)
V₁ = Volume of total extract (ul)

V₁ 2.0 ml W₁ _____ V₁ 5.00 ml V₁ 2.0 ml
- Modified prep; see narrative.

Laboratory Name LIAS - Knoxville
Case No FE6 23610

Sample Number
WB-1

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

0005-

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22-29/86
Date Analyzed 1/15, 16, 17/87
Conc Dil Factor 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

ug/l or ug/kg
(Circle One)

1928-38-7	2,4-D M.E.	< 1. U
	2,4,5-T M.E.	< 0.1 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_i 971 ul or W_s _____ V_i 2000 ul V_t 2 ul
* Modified prep; see narrative.

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 23548 Contractor LLPS - Knoxville Contract No. _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS
VGA	1,1-Dichloroethane								14 81.168
SWO	Trichloroethane								14 71.110
SAMPLE NO.	Chlorobenzene								13 78.137
	Toluene								13 78.128
	Benzene								11 70.127
BHA	1,2,4-Trichlorobenzene								20 39.03
SWO	Acetophenone								31 40.118
SAMPLE NO.	2,4-Dinitrochlorobenzene								30 34.03
	Pyrene								31 36.177
	1,2-Dichlorobenzene								30 41.110
ACID	1,2-Dichlorobenzene								20 30.07
SWO	Phenol								20 0.003
SAMPLE NO.	2-Chlorophenol								43 12.09
	4-Chlorophenol								43 27.125
	4-Nitrophenol								42 33.07
	2,4-D.H.E.	0.97							10 10.00
SAMPLE NO.	2,4,5-T.H.E.			0.22	34				10 82.133
									20 42.131
									27 49.120
									10 27.128
									21 50.129
									07 39.137

3 ASTERISKED VALUES ARE OUTSIDE QC LIMITS

RPD: VGA out of limits outside QC limits
 SWO out of limits outside QC limits
 ACID out of limits outside QC limits
 PEST out of limits outside QC limits

RECOVERY: VGA out of limits outside QC limits
 B/M out of limits outside QC limits
 ACID out of limits outside QC limits
 PEST out of limits outside QC limits

Comments: Results shown are for a spiked D.I. water blank (lab no. 066185).

0002

Region.

Contractor

Krasville

Contract No.

[illegible]

Comments:

ANNUAL

185

100

TAS Knoxville

Contract No. _____

Comments:

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 23550Contractor ITAS Knoxville

Contract No. _____

Low Level _____

Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	RPD OC RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethane								33 60.112
	Trichloroethylene								24 62.137
	Dichlorobenzene								21 60.133
	Toluene								31 60.139
	Benzene								21 62.142
B/M SMO SAMPLE NO.	1,2,4-Trichlorobenzene								23 53.101
	Acetophenone								19 31.137
	2,4-Dinitrotoluene								47 38.63
	Pyrene								33 35.142
	N-Nitrosodiphenylamine								39 41.138
ACID SMO SAMPLE NO.	1,4-Dioxinobenzene								77 32.104
	Permethyldichloral								47 17.109
	Phenol								35 28.69
	2-Chlorophenol								60 25.102
	4-Chloro-2-methylphenol								33 23.103
HCB SAMPLE NO.	5 Nitrophenol								59 11.114
	2,4-D H.E.	19	-	7.8	53				29 42.177
	2,4,5-T.H.E.	-	-	-	-				43 34.131
									39 32.134
									45 42.139
Spike (B-1)									
									53 23.134

* ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

RPD: VOA: out of : outside OC limits
 B/M: out of : outside OC limits
 ACID: out of : outside OC limits
 PEST: out of : outside OC limits

RECOVERY: VOA: out of : outside OC limits
 B/M: out of : outside OC limits
 ACID: out of : outside OC limits
 PEST: out of : outside OC limits

Comments: Results shown are for a spiked blank (lab # 0663-53)

FORM III

7/05

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 23550 Contractor Contract No.

Low Level Medium Level

FRACTION	COMPOUND	CONC. SPIKE ADD'D (ug/kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	NPD	OC LIMITS ⁹
VOA SLO SAMPLE NO.	1,1 Dichloroethane								22 59.172
	Trichloroethane								24 81.137
	Chlorobenzene								31 60.133
	Toluene								21 60.139
BIN SLO SAMPLE NO.	Benzene								21 81.142
	1,2,4 Trichlorobenzene								23 23.107
	Acetophenone								18 31.137
	2,3 Dinitrofluorene								47 23.69
ACID SLO SAMPLE NO.	Pyrene								33 33.147
	N Nitroresin Propylamine								28 41.128
	1,3 Dichlorobenzene								27 28.104
	Pentachlorophenol								47 17.109
HCB SLO SAMPLE NO.	Phenol								35 28.60
	2 Chlorophenol								60 25.102
	4 Chloro-3 Nitrophenol								33 28.103
	4 Nitrophenol								50 11.114
HCB SAMPLE NO.	2,4-D H.E.	19	56000	120000	*	99000	*	19	50 48.137
	2,4,5-T H.E.		100000	240000	*	160000	*	19	33.134
								1-14 27	43 34.131
									38 31.134
									43 42.138
									63 23.134

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

NPD: VOA: out of : outside QC limits
BIN: out of : outside QC limits
ACID: out of : outside QC limits
PEST: out of : outside QC limits
Comments: * Spike Concentration too low compared to sample concentration. Sample not homogeneous.

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 23609 Contractor ITAS Knoxville Contract No. _____

Low Level _____

Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	NPD	OC RECOVERY
VOA S&O SAMPLE NO.	1,1-Dichloroethane								22 29.172
	Trichloroethane								24 31.137
	Chlorobenzene								21 23.133
	Toluene								21 29.139
	Benzene								21 22.142
B/N S&O SAMPLE NO.	1,2,4-Trichlorobenzene								23 23.107
	Acetophenone								19 31.137
	2,4-Dinitrochlorobenzene								47 23.69
	Pyrene								33 35.142
	11-Hydroxy-2-naphthol								39 41.178
ACID S&O SAMPLE NO.	1,4-Dichlorobenzene								27 23.104
	Pentachlorobenzene								47 17.109
	Phenol								35 20.90
	2-Chlorophenol								69 25.107
	4-Chloro-2-Methylphenol								33 23.103
H&P S&O SAMPLE NO.	4-Methylphenol								59 11.114
	2,4-D H.P.	19	42.0	11	58	11	87	43	59 63.177
	2,4,5-T H.P.	21	42	11	52	11	86	48	31 35.173
									43 33.127
									38 31.134
									45 47.129
									60 23.134

*ASTERISKED VALUES ARE OUTSIDE OC LIMITS.

NPD: VOA: _____ out of _____; outside OC limits
 B/N: _____ out of _____; outside OC limits
 ACID: _____ out of _____; outside OC limits
 PEST: _____ out of _____; outside OC limits

Comments: _____

FORM III

7/05

002

996

Comments: Prepped with samples FS-5 and FS-6

7185

000

997

Comments:

7185

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG-23610

Contractor LMS Knoxville

Contract No. _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS RPD RECOVERY
VOA S&O SAMPLE NO.	1,1-Dichloroethane								14 81-148
	Trichloroethane								14 71-120
	Chlorobenzene								13 78-139
	Toluene								12 78-125
	Benzene								11 78-127
B/N S&O SAMPLE NO.	1,2,4-Trichlorobenzene								28 38-88
	Acetophenone								31 49-119
	1,4-Dinitrobenzene								32 21-88
	Pyrene								31 24-127
	1,4-Dichlorobenzene								32 41-119
ACID S&O SAMPLE NO.	Perchloroethylene								22 32-27
	Phenol								20 8-101
	2-Chlorophenol								42 17-89
	4-Chloro-2-methylphenol								40 27-123
	4-Nitrophenol								42 23-87
Herb. S&O SAMPLE NO.	2,4-D M.E.	2.6	4.1	1.5	53	1.2	46	42	50 10-50
	2,4,5-T M.E.								15 58-123
									28 40-131
									22 45-126
									18 22-126
									21 58-131
									27 38-122

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOA: out of _____; outside QC limits
 B/N: out of _____; outside QC limits
 ACID: out of _____; outside QC limits
 PEST: out of _____; outside QC limits

RECOVERY: VOA: out of _____; outside QC limits
 B/N: out of _____; outside QC limits
 ACID: out of _____; outside QC limits
 PEST: out of _____; outside QC limits

Comments: _____

FORM 31

7/85

00002

DIACIL

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. EGG 93611

Contractor LINS Knoxville

Contract No. _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS RPD RECOVERY
VOA SMD SAMPLE NO.	1,1-Dichloroethene								14 81.148
	Trans-1,2-Dichloroethene								14 71.128
	Cis-1,2-Dichloroethene								13 78.129
	Toluene								12 72.125
	Benzene								11 78.127
B/M SMD SAMPLE NO.	1,2,4-Trichlorobenzene								23 39.82
	Axialchlorobenzene								31 40.118
	2,4-Dinitrochlorobenzene								38 24.82
	Pyrene								31 29.127
	14-Ketone Dim. Hydrocarbons								39 41.118
ACID SMD SAMPLE NO.	1,4-Dichlorobenzene								20 32.87
	Perchlorobenzene								89 9.103
	Phthalate								42 12.89
	2-Chlorophenol								40 27.123
	4-Chloro-2,3-Dichlorophenol								42 23.87
Met h. SMD SAMPLE NO.	4-Hydroxyphenol								59 19.82
	2,4-D-H.E.								15 58.123
	2,4,6-Sub. H.E.								22 40.129
									19 82.128
									21 58.121
									37 38.127

* ATTEMPTED VALUES ARE OUTSIDE QC LIMITS

RPD: VOA: out of _____ outside QC limits
 B/M: out of _____ outside QC limits
 ACID: out of _____ outside QC limits
 PEST: out of _____ outside QC limits

RECOVERY:

VOA: out of _____ outside QC limits
 B/M: out of _____ outside QC limits
 ACID: out of _____ outside QC limits
 PEST: out of _____ outside QC limits

Comments: Sample was a Spiked Blank

FORM #

7/85

Laboratory Name ITAS - Knoxville
Case No E66 23609

Sample Number
MB-1 E66 23609

Organics Analysis Data Sheet
(Page 3)

187

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86
Date Analyzed 1/9/10/87
Conc (Dil Factor) 1/2 1/10
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1929-38-7	2,4-D M.E.	<u>< 20 u</u>
	2,4,5-T M.E.	<u>< 7 u</u>

V₁ = Volume of extract injected (ul)

V₂ = Volume of water extracted (ml)

W₁ = Weight of sample extracted (g)

V₁ = Volume of total extract (ul)

V₁ _____ or W₁ 50 g V₂ 5000 ul V₁ 2 ul
* Modified prep; see narrative

Laboratory Name LIA - Knoxville
Case No E66 23609

Sample Number
AB-3 E66 23609

Organics Analysis Data Sheet
(Page 3)

203

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Data Extracted/Prepared 1/12/87 1/16/87
Date Analyzed 1/17/87
Conc (Oil Factor) 1/2 1/5
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 20.11
	2,4,5-T M.E.	< 2.11

V₁ = Volume of extract collected (ml)

V₂ = Volume of water extracted (ml)

W₂ = Weight of sample extracted (g)

V₁ = Volume of total extract (ml)

V₁ _____ W₂ 50.3 V₁ 500.0 V₂ 2.0
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23669

Sample Number
Spiked Blank

Organics Analysis Data Sheet
(Page 3)

004

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86
Date Analyzed 1/9/87
Conc (Dil Factor) 1/5
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	7.5
	2,4,5-T M.E.	1.35

V_i = Volume of extract injected (ul)
V_s = Volume of water extracted (ml)
W_s = Weight of sample extracted (g)
V_t = Volume of total extract (ul)

V_i _____ or W_s 50 g V_t 5000 ul V_s 2 ml
* Modified prep; see narrative.

Laboratory Name _____
Case No E66 23548

Sample Number
MBZ-E66 23548

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00075

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/7/87
Conc (Dil Factor) 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		<u>ug/l</u> or <u>ug/Kg</u> (Circle One)
1928-38-7	2,4-D M.E.	<1 u
	2,4,5-T M.E.	<0.1 u

V_i = Volume of extract injected (ul)
 V_s = Volume of water extracted (ml)
 W_s = Weight of sample extracted (g)
 V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 5000 ul V_t 2 ul
* Modified prep; see narrative.

Laboratory Name _____
Case No E64 23548

Sample Number
SPIKED BLANK

Organics Analysis Data Sheet
(Page 3)

00082

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/7.8/87
Conc (Dil Factor) 1/5 1/10
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		<u>ug/l or ug/Kg</u> (Circle One)
1928-38-7	2,4-D M.E.	<u><1. U</u>
	2,4,5-T M.E.	<u><0.1 U</u>

V₁ = Volume of extract injected (ul)

V₂ = Volume of water extracted (ml)

W₁ = Weight of sample extracted (g)

V₁ = Volume of total extract (ul)

V₁ 1000 ul or W₁ _____ V₂ 5000 ul V₁ 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23550

183

Sample Number
MB3-E66 23550

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/17/86
Date Analyzed 1/19/87
Conc (Dil Factor) 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	< 20 U
	2,4,5-T M.E.	< 2 U

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_2 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_2 _____ or W_2 50 g V_1 5000 ul V_2 2 ul
* Modified prep; see narrative.

Laboratory Name _____
Case No EGG 23550

173

Sample Number
Spiked Blank

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared: 12/17/86

Separatory Funnel Extraction ☒ Yes NA ^{12/17/87}

Date Analyzed: 1/9/87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc (Dil Factor) 1/5

Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	9.8 S
	2,4,5-T M.E.	2.3 S

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 50 V_i 5000 ul V_t 2 ul
*- Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23550

201

Sample Number
FS-1 GC MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/17/86
Date Analyzed 1/9/87
Conc (Dil Factor) 1/50000, 1/200000
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	120000.5
	2,4,5-T M.E.	240000.5

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 50.09g V_i 5000ul V_t 2ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EEG 23550

Sample Number
FS-1 GC MSO

Organics Analysis Data Sheet
(Page 3)

217

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 1/9/87
Conc. Dil Factor 1/20000 1/100000
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	99000.5
	2,4,5-T M.E.	180000.5

V_i = Volume of extract injected (μ l)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (μ l)

V_s _____ or W_s 50.28g V_i 5000 μ l V_t 2 μ l
*- Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No E66 23609

Sample Number
AD-5 GC MS

Organics Analysis Data Sheet
(Page 3)

214

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup ☐ Yes ☒ No
Date Extracted/Prepared 12/22/86 - 1/14/87 Separatory Funnel Extraction ☐ Yes
Date Analyzed 1/17/87 Continuous Liquid - Liquid Extraction ☐ Yes
Conc Dil Factor 1/5 1/10
Percent Moisture (decanted) _____

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	11.5
	2,4,5-T H.E.	11.5

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_2 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_2 _____ or W_2 50.58g V_1 5000ul V_1 2ul
* Modified prep; see narrative.

Laboratory Name 1.12 - 800XV.1.10
Case No EGG 23609

Sample Number
AO-5 GC MSO

Organics Analysis Data Sheet
(Page 3)

226

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86 1/14/87
Date Analyzed 1/17/87
Conc (Oil Factor) 1/5 1/10
Percent Moisture (dewatered) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/kg (Circle One)
1928-38-7	2,4-D M.E.	// S
	2,4,5-T M.E.	// S

V₁ = Volume of extract injected (ul)
V₂ = Volume of water extracted (ml)
W₃ = Weight of sample extracted (g)
V₁ = Volume of total extract (ul)

V₂ _____ W₃ 50.47g V₁ 5000ul V₁ 2.44d
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG-23610

Sample Number
HR2 EGG-23610

Organics Analysis Data Sheet
(Page 3)

00099

Pesticide/PCBs

Concentration * Low Medium (Circle One) GPC Cleanup ☐ Yes ☒ No
Date Extracted/Prepared 12/22/86 + 1/14/87 Separatory Funnel Extraction ☒ Yes
Date Analyzed 1/15/87 Continuous Liquid - Liquid Extraction ☐ Yes
Conc (Oil Factor) 1
Percent Moisture (decanted) _____

CAS Number	ug/l or ug/Kg (Circle One)
1928-38-7 2,4-D M.E.	<1.0
2,4,5-T M.E.	<1.0

V_i = Volume of extract injected (ul)
V_s = Volume of water extracted (ml)
W_s = Weight of sample extracted (g)
V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 5000 ul V_t 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG 23610

Sample Number
POTW GC MS

Organics Analysis Data Sheet
(Page 3)

00109

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 1/14/87
Date Analyzed 1/15+16/87
Conc (Oil Factor) 1/5
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		<u>ug/l or ug/Kg</u> (Circle One)
1928-38-7	2,4-D M.E.	<u>1.55</u>
	2,4,5-T M.E.	<u><0.1 u</u>

V₁ = Volume of extract injected (ul)

V₂ = Volume of water extracted (ml)

W₁ = Weight of sample extracted (g)

V₁ = Volume of total extract (ul)

V₁ 500 ul or W₁ _____ V₂ 500 ul V₁ 2 ul
* - Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG-23610

Sample Number:
POTW GC HSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

00119

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 1/14/87
Date Analyzed 1/15/87
Conc/Dil Factor 15
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/lb ug/kg (Circle One)
1929-38-7	2,4-D M.E.	1.25
	2,4,5-T M.E.	0.141

V_1 = Volume of extract injected (ul)
 V_2 = Volume of water extracted (ml)
 W_1 = Weight of sample extracted (g)
 V_1 = Volume of total extract (ul)

V_1 500 ul or W_1 _____ V_2 500 ul V_1 2 ul
* Modified prep; see narrative.

Laboratory Name ITAC - Knoxville
Case No EGG 23611

Sample Number
MB-1 EGG 23611

Organics Analysis Data Sheet
(Page 3)

200

Pesticide/PCBs

Concentration * Low Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/23/86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1/9 + 10/87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc Dil Factor 1/5 1/50

Percent Moisture (decanted) _____

CAS Number		<u>mg</u> <u>kg</u> (Circle One)
1928-38-7	2,4-D M.E.	<u><1</u> <u>ug</u>
	2,4,5-T M.E.	<u><0.1</u> <u>ug</u>

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_1 5000 ul V_2 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville

Case No. EE-6 23611

217

Sample Number
Spiked Blank

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration * Low Medium (Circle One)

Date Extracted/Prepared 12/23/86

Date Analyzed 1/9, 16/87

Conc (Oil Factor) 1/5, 1/20

Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No

Separatory Funnel Extraction ☐ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

mg
ug/liter of oil
(Circle One)

1928-38-7	2,4-D M.E.	1.6	S
	2,4,5-T M.E.	<1.	U

V_1 = Volume of extract injected (ul)

V_2 = Volume of water extracted (ml)

W_2 = Weight of sample extracted (g)

V_1 = Volume of total extract (ul)

V_2 _____ or W_2 _____ V_1 5000 ul V_2 2 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG-23612

Sample Number
XAD Blank

Organics Analysis Data Sheet
(Page 3)

00001

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/86
Date Analyzed 1/10/87
Conc Dil Factor 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number	ug/g or ug/kg (Circle One)
1928-38-7	2,4-D M.E. <1. U
	2,4,5-T M.E. <1. U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 50000 ul V_t 2.5 ul
* Modified prep; see narrative.

Laboratory Name ITAS - Knoxville
Case No EGG - 23612

Sample Number
T BIK 791
REAGENT BLANK

Organics Analysis Data Sheet
(Page 3)

00012

Pesticide/PCBs

Concentration * Low Medium (Circle One)
Date Extracted/Prepared 12/22/96
Date Analyzed 1/10/97
Conc (Oil Factor) 1
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

CAS
Number

24g
up to 100g
(Circle One)

1928-38-7	2,4-D M.E.	< 1.0
	2,4,5-T M.E.	< 0.1

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 50000 ul V_t 2 ul
* Modified prep; see narrative.

Metals Analysis Data Summary

CASE SUMMARY

- I. Metals normally analyzed by inductively coupled argon plasma spectroscopy (ICAP) were analyzed by atomic absorption spectroscopy due to a malfunctioning ICAP unit.
- II. Lead was detected in preparation blanks for liquid and solid samples at a concentration less than the contract required detection limit (CRDL) and close to the instrument detection limit (IDL): 1.2 micrograms/liter and 2.4 micrograms/liter respectively.

III. Cacodylic Acid - Determination of arsenic in an organic compound

0.5 grams of $(CH_3)_3AsO_2Na \cdot 3H_2O$ were prepared as if the solid were a client submitted solid. The results for arsenic analysis are as follows:

<u>Observed (ppm)</u>	<u>Theoretical (ppm)</u>	<u>% Recovery</u>
1067.	877.	122

IV. Spike Recovery - In summary, the following elements have been labeled as nonconformance:

<u>Element</u>	<u>Lab ID #</u>	<u>Client #</u>	<u>Matrix</u>
Pb	AA6455/AA6455-spike	ENT-5	Liquid
Hg	AA6455/AA6455-spike	ENT-5	Liquid
Se	AA6455/AA6455-spike	ENT-5	Liquid
As	AA5920/AA5927	FS-1	Solid

Comments: Low recovery factors for the single standard addition method were observed during mercury analysis for the ENT-5 spike. A spike of 0.004 ppm mercury was added because the normal spike of 0.001 ppm could not be seen.

V. Duplicate Preparation - In summary, the following elements have been labeled as nonconformance:

<u>Element</u>	<u>Lab ID #</u>	<u>Client #</u>	<u>Matrix</u>
Hg	AA6455/AA6455-spike	ENT-5	Liquid
Hg	AA5920/AA5927	FS-1	Solid
Pb	AA5920/AA5927	FS-1	Solid

Laboratory ID: ITAS Knoxville
Case: EC&G
Concentration Units: mg/kg

Metals Data Summary
Feed Stock Samples

Analyte	FS-1	FS-2	FS-3	FS-5	FS-6
ARSENIC	8.20	5.50	9.80	4.10	6.20
BARIUM	31.00 J	61.00	39.00	23.00 J	27.00 J
CADMIUM	0.20 U	0.20 U	0.20 U	0.20 U	0.23 J
CHROMIUM	8.10	8.40	7.30	5.80	5.70
LEAD	10.00	7.00	12.00	7.00	6.60
MERCURY	0.04	0.02 U	0.02	0.12	0.02 U
NICKEL	2.00 U	2.10 J	2.00 U	1.70 J	2.00 U
SELENIUM	0.20 U	0.20 U	0.20	0.20 U	0.20 U
SILVER	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EG&G
Concentration Units: mg/kg

Metals Data Summary
Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6	BS-1
ARSENIC	3.60	2.70	3.90	3.60	3.50	4.90
BARIUM	30.00 J	24.00	48.00	27.00	12.00 J	10.00 J
CADMIUM	0.20 U	0.20 U	0.20 U	0.20 U	0.17 J	0.20 U
CHROMIUM	4.10	4.90	7.60	5.80	5.90	3.10
LEAD	3.40	4.20	4.00	4.50	6.20	1.60
MERCURY	0.02 U	0.02 U	0.03	0.02 U	0.02 U	0.02 U
NICKEL	2.00 U	1.80 J	2.60 J	2.00 J	2.40 J	2.10 J
SELENIUM	0.20	0.20	0.20 U	0.20 U	0.20 U	0.20 U
SILVER	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EC&G
Concentration Units: ug/L

Metals Data Summary
ENT Water Samples

Analyte	ENT-8	ENT-1	ENT-2	ENT-5	ENT-6
ARSENIC	196.00	404.00	273.00	308.00	196.00
BARIUM	93.00 J	142.00 J	443.00	92.00 J	208.00
CADMIUM	11.00	20.00	27.00	1.00 U	3.80 J
CHROMIUM	122.00	174.00	148.00	234.00	322.00
LEAD	85.00	99.00	82.00	37.00	48.00
MERCURY	0.41	1.60	1.40	1.70	3.00
NICKEL	154.00	151.00	169.00	36.00 J	46.00
SELENIUM	182.00	185.00	169.00	46.00	87.00
SILVER	0.86 J	0.55 J	0.10 U	0.48 J	1.10 J

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EG&G
Concentration Units: ug/L

Metals Data Summary
Water Samples

Analyte	BB-1	BB5	BB6	POTW	CW	WB1
ARSENIC	2.10 J	1.00 U	4.00 U	13.00	5.60 J	1.00 U
BARIUM	56.00 J	20.00 U	20.00 U	204.00	449.00	20.00 U
CADMIUM	1.00 U	1.00 U	1.00 U	12.00	1.00 U	1.00 U
CHROMIUM	27.00	38.00	35.00	10.00 U	32.00	10.00 U
LEAD	49.00	35.00	17.00	2.50 J	173.00	4.90 J
MERCURY	0.52	0.20 U	0.20 U	0.40 U	13.00	0.20 U
NICKEL	2650.00	2420.00	2760.00	30.00 J	20.00 U	10.00 U
SELENIUM	6.00 U	1.00 U	1.00 U	60.00	60.00 U	1.00 U
SILVER	0.10 U	0.10 U	0.10 U	0.10 U	7.00 U	0.10 U

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

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0 0
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Date 1-16-87

COVER PAGE
INORGANIC ANALYSIS DATA PACKAGE

Lab Name TPAS - Knoxville
SOW No. _____

Case No. _____
Q.C. Report No. EGG 23548-SSD-609

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
ENT-8	AA5940	AD-2	AA5924
ENT-1	AA5941	AD-3	AA5925
ENT-2	AA5942	ES-6	AA6438
BB-1	AA5943	AD-6	AA6439
ES-1	AA5920	ES-5	AA6440
ES-2	AA5921	AD-5	AA6441
ES-3	AA5922		AA6445 (Kw)
AD-1	AA5943		

Comments:

AV - Used as designation for analysis by
cold vapor technique for mercury

ICP interelement and background corrections applied? Yes _____ No _____.

If yes, corrections applied before _____ or after _____ generation of raw data.

Footnotes:

NR - Not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract-required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP), A (for Flame AA) or F (for Furnace AA).

U - Indicates element was analyzed for but not detected. Report with the instrument detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

S - Indicates value determined by Method of Standard Addition.

M - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

M - Indicates duplicate injection results exceeded control limits.

Indicate method used: P for ICP; A for Flame AA and F for Furnace.

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Form I

U.S. EPA Contract Laboratory Program
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EPA Sample No.

FS-1

Date 1-16-97

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS-Knoxville

CASE NO.

SOW NO.

LAB SAMPLE ID. NO. AAS920

QC REPORT NO. E66 23549-500-609-6

Elements Identified and Measured

Concentration: Low Medium
 Matrix: Water Soil ☒ Sludge Other

ug/L or (mg/kg dry weight) (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 32 S N E	15. Mercury 0.04 * AV
4. Barium (31) (K) A	16. Nickel 2.0 A
5. Beryllium	17. Potassium
6. Cadmium 0.20 A	18. Selenium 0.20 E
7. Calcium	19. Silver 0.020 E
8. Chromium 8.1 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 10 * E	Percent Solids (2) 92.66
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Katherine Willey

Form I

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EPA Sample No.
FS-2 /

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME TDH - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. 14592

QC REPORT NO. EGL 23545-550-609-01

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil ✓ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic <u>55 N E F</u>	15. Mercury <u>0.02 u</u> <u>AV</u>
4. Barium <u>61</u> <u>A</u>	16. Nickel <u>[X 1]</u> <u>A</u>
5. Beryllium	17. Potassium
6. Cadmium <u>0.2 u</u> <u>A</u>	18. Selenium <u>0.2 u</u> <u>E</u>
7. Calcium	19. Silver <u>0.02 u</u> <u>F</u>
8. Chromium <u>8.4</u> <u>A</u>	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead <u>7.0 E F</u>	Percent Solids (2) <u>91.35</u>

Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine L. Lohrey

Form I

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EPA Sample No.

FS-3

Date 1-16-97

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITPS - Knoxville

CASE NO. _____

SCW NO. _____

LAB SAMPLE ID. NO. 44593ZQC REPORT NO. ECC 73549-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil ✓ Sludge _____ Other _____

ug/L or ug/kg dry weight (Circle One)

1. Aluminum	19. Magnesium
2. Antimony	14. Manganese
3. Arsenic <u>99 NS F</u>	15. Mercury <u>0.02</u> <u>AV</u>
4. Barium <u>39</u> <u>A</u>	16. Nickel <u>2.0</u> <u>A</u>
5. Beryllium	17. Potassium
6. Cadmium <u>0.24</u> <u>A</u>	18. Selenium <u>0.2</u> <u>F</u>
7. Calcium	19. Silver <u>0.074</u> <u>F</u>
8. Chromium <u>7.3</u> <u>A</u>	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead <u>12</u> <u>F</u>	Percent Solids (2) <u>91.56</u>

Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine L. Bailey

Form I

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EPA Sample No.

FS-5 ✓

Date 1-16-97

INORGANIC ANALYSIS DATA SHEET

LAB NAME IMS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6440QC REPORT NO. EGG 23549-SS-609-0

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil ☒ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 4.1 s N F	15. Mercury 0.12 * AV
4. Barium [23.] A	16. Nickel [1.7] A
5. Beryllium	17. Potassium
6. Cadmium 0.20 A	18. Selenium 0.20 F
7. Calcium	19. Silver 0.020 F
8. Chromium 5.9 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 7.0 * F	Percent Solids (2) 90.96
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Kathleen Whaley

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Form I

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EPA Sample No.

FS-6

Date 1-16-97

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITS-Knoxville

CASE NO.

SOW NO.

LAB SAMPLE ID. NO. A46433

QC REPORT NO. ELC 23543-330-609-61

Elements Identified and Measured

Concentration: Low Medium
 Matrix: Water Soil ☒ Sludge Other

ug/L or cg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 6.2 * N F	15. Mercury 0.02u * AV
4. Barium [27] F (m) A	16. Nickel 2u A
5. Beryllium	17. Potassium
6. Cadmium [0.23] A	18. Selenium 0.2u F
7. Calcium	19. Silver 0.02u F
8. Chromium 5.7 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 6.6 * F	Percent Solids (I) 91.16
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Katherine Whaley

Form I

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EPA Sample No.

AD-1 -

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITIS - Knoxville

CASE NO. _____

FLOW NO. _____

LAB SAMPLE ID. NO. AA5923QC REPORT NO. EGG 23347-350-609-1

Elements Identified and Measured

Concentrations: Low _____ Medium _____
 Matrix: Water _____ Soil ☒ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic <u>3.6 NS F</u>	15. Mercury <u>0.02u * AV</u>
4. Barium <u>120 A</u>	16. Nickel <u>2u A</u>
5. Barium	17. Potassium
6. Cadmium <u>0.2u A</u>	18. Selenium <u>0.2 F</u>
7. Calcium	19. Silver <u>0.02u F</u>
8. Chromium <u>4 A</u>	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead <u>3.4 * F</u>	Percent Solids (2) <u>91.53</u>

Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager

Kathleen L. Lohrey

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Form I

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 703/557-2490 FTS: 6-557-2490

EPA Sample No.

AD-Z ✓

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA5924

QC REPORT NO. EGC L3548-SSB-609-610

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil ✓ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 2.7 NS F	15. Mercury 0.02u + AV
4. Barium 2.4 A	16. Nickel [1.8] A
5. Beryllium	17. Potassium
6. Cadmium 0.2u A	18. Selenium 0.2 F
7. Calcium	19. Silver 0.02u F
8. Chromium 4.9 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 4.2 * F	Percent Solids (2) 74.98
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

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Form I

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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

AD-3

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO.

SOX NO.

LAB SAMPLE ID. NO. A25925

QC REPORT NO. EGC 23549-SSD-609-6

Elements Identified and Measured

Concentration:

Low

Medium

Matrix: Water

Soil

Sludge

Other

ug/L or ng/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 3.9 N ₃ F	15. Mercury 0.03 + AV
4. Barium 43 A	16. Nickel [2.6] A
5. Beryllium	17. Potassium
6. Cadmium 0.2U A	18. Selenium 0.2U F
7. Calcium	19. Silver 0.02U F
8. Chromium 7U A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 4.0 + F	Percent Solids (2) 78.04
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Katherine Whaley

8 - 8

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 818 - Alexandria, VA 22313
 703/557-2490 FTS: 8-557-2490

EPA Sample No.

AD-5 ✓

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6441

QC REPORT NO. 666 23547-550-609-610

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil ☒ Sludge _____ Other _____

ug/L or (ug/kg dry weight) (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 36.5 N F	15. Mercury 0.02u AV
4. Barium 27 A	16. Nickel [2.0] A
5. Beryllium	17. Potassium
6. Cadmium 0.2u A	18. Selenium 0.2u F
7. Calcium	19. Silver 0.02u F
8. Chromium 5.9 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 4.5 * F	Percent Solids (%) 74.11
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager

Katherine Whaley

8 - 8

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 818 - Alexandria, VA 22313
 703/357-2490 FTS: 8-557-2490

EPA Sample No.

AD-6

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO.

SOW NO.

LAB SAMPLE ID. NO. AA6439

QC REPORT NO. ECL 23541-550-609-6

Elements Identified and Measured

Concentration:

Low

Medium

Matrix: Water

Soil

Sludge

Other

ug/L or ng/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 3.5 S N F	15. Mercury 0.02u * AV
4. Barium [12] (w) A	16. Nickel [2.4] A
5. Beryllium	17. Potassium
6. Cadmium [0.17] A	18. Selenium 0.2u F
7. Calcium	19. Silver 0.02u F
8. Chromium 5.9 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 6.2 * F	Percent Solids (2) 79.48
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Kathleen Whaley

B - 8

Form I

U.S. EPA Contract Laboratory Program
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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

BS-1 ✓

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6449

QC REPORT NO. EGG 23548-550-604-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water _____ Soil ☒ Sludge _____ Other _____

ug/L or (mg/kg dry weight) (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 4.9 N F	15. Mercury 0.02 u * AU
4. Barium [10.] A	16. Nickel [2.1] A
5. Beryllium	17. Potassium
6. Cadmium 0.2 u A	18. Selenium 0.2 u F
7. Calcium	19. Silver 0.02 u F
8. Chromium 3.1 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 1.6 * F	Percent Solids (%) 90.50
Cyanide	

Footnotes: For reporting results to EPA, standard results qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Wilkey

B - 8

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 818 - Alexandria, VA 22313
 703/557-2490 FTS: 8-557-2490

EPA Sample No.

ENT-8

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO.

SOW NO.

LAB SAMPLE ID. NO. AA-5240

QC REPORT NO. EGG 23543-330-609-61

Elements Identified and Measured

Concentration: Low Medium
 Matrix: Water ☒ Soil Sludge Other

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 196 F	15. Mercury 0.41 N * AV
4. Barium [93] A	16. Nickel 154 A
5. Beryllium	17. Potassium
6. Cadmium 11 A	18. Selenium 152 g N F
7. Calcium	19. Silver [0.36] (0.36) F
8. Chromium 122 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 95 g N F	Percent Solids (%)
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Kathleen Whaley

Form I

U.S. EPA Contract Laboratory Program
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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

ENT-1

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS-Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA5941QC REPORT NO. EGG 83543-SSO-609-610

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water ☒ Soil _____ Sludge _____ Other _____

(ug/L or mg/kg dry weight (Circle One))

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic <u>404</u> s F	15. Mercury <u>1.6</u> N * AV
4. Barium <u>[142]</u> A	16. Nickel <u>151</u> A
5. Beryllium	17. Potassium
6. Cadmium <u>30</u> A	18. Selenium <u>175</u> * N F
7. Calcium	19. Silver <u>[0.55]</u> Y (KW) F
8. Chromium <u>174</u> A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead <u>99</u> s N F	Percent Solids (2)
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager

Katharina Whaley

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

ENT-2 ✓

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. A5842

QC REPORT NO. EQG 23343-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water ☒ Soil _____ Sludge _____ Other _____

(ug/L or mg/kg dry weight (Circle One))

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 273 S F	15. Mercury 1.4 N* AV
4. Barium 443 A	16. Nickel 169 A
5. Beryllium	17. Potassium
6. Cadmium (low) 57 100 A	18. Selenium 10.9 N F
7. Calcium	19. Silver 0.1 U F
8. Chromium 148 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 32 S N F	Percent Solids (%)
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Wilkey

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 818 - Alexandria, VA 22313
 703/557-2490 FTS: 8-557-2490

EPA Sample No.

ENT-5

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITPS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6455QC REPORT NO. EGG 23548-SSD-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water ✓ Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum _____	13. Magnesium _____
2. Antimony _____	14. Manganese _____
3. Arsenic <u>309</u> s F	15. Mercury <u>1.7</u> * N A V
4. Barium <u>[92]</u> A	16. Nickel <u>[36.]</u> A
5. Beryllium _____	17. Potassium _____
6. Cadmium <u>106</u> A	18. Selenium <u>46</u> s N F
7. Calcium _____	19. Silver <u>[0.49]</u> s F
8. Chromium <u>234</u> A	20. Sodium _____
9. Cobalt _____	21. Thallium _____
10. Copper _____	22. Vanadium _____
11. Iron _____	23. Zinc _____
12. Lead <u>37</u> s N F	Percent Solids (Z) _____
Cyanide _____	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Katherine Whaley

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Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 813 - Alexandria, VA 22313
 703/557-2490 FTS: 8-557-2490

EPA Sample No.
ENT-6

Date 1-16-97

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS-Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA-458

QC REPORT NO. ELG 23547-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water ☒ Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic <u>196</u> <u>F</u>	15. Mercury <u>3.0</u> <u>SN</u> <u>AV</u>
4. Barium <u>203</u> <u>A</u>	16. Nickel <u>46</u> <u>A</u>
5. Beryllium <u>[33]</u>	17. Potassium
6. Cadmium <u>(Kd) 100</u> <u>A</u>	18. Selenium <u>37</u> <u>SN</u> <u>F</u>
7. Calcium	19. Silver <u>[11]</u> <u>S</u> <u>F</u>
8. Chromium <u>312</u> <u>A</u>	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead <u>43</u> <u>SN</u> <u>F</u>	Percent Solids <u>(2)</u>
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

Lab Manager Kent B. ...

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 818 - Alexandria, VA 22313
 703/557-2490 FTS: 8-557-2490

EPA Sample No.

DOTW -

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS-Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA6461

QC REPORT NO. E66 23541-550-609-6

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water ☒ Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13.5	F	13. Magnesium	
2. Antimony			14. Manganese	
3. Arsenic	2.04	A	15. Mercury	0.4 U * NAF
4. Barium			16. Nickel	[30.] A
5. Beryllium			17. Potassium	
6. Cadmium	12.	A	18. Selenium	60.5 NF
7. Calcium			19. Silver	0.1 U F
8. Chromium	104	A	20. Sodium	
9. Cobalt			21. Thallium	
10. Copper			22. Vanadium	
11. Iron			23. Zinc	
12. Lead	[25]	2 NF	Percent Solids (%)	

Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) Mercury analysis - matrix interferences - sample diluted by 1/2 to increase detection factor for single addition spike - new detection limit 0.4 ug/L - see sheet # 1251 (1/8)

Lab Manager Katherine Whaley

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 818 - Alexandria, VA 22313
 703/357-2490 FTS: 8-357-2490

EPA Sample No.

CW

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO.

SOW NO.

LAB SAMPLE ID. NO. A46468

QC REPORT NO. 66-23549-SSD-609-6

Elements Identified and Measured

Concentration: Low Medium
 Matrix: Water ☒ Soil ☐ Sludge ☐ Other ☐

(ug/L) or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic [5.6] 3 F	15. Mercury 13 *NAV
4. Barium 449 A	16. Nickel 20u A
5. Beryllium	17. Potassium
6. Cadmium 1u A	18. Selenium 60u N F
7. Calcium	19. Silver 7u F
8. Chromium 32 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 173 3 + N F	Percent Solids (%)
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) Nickel: matrix interferences raised the detection limit from the instrument detection limit of <0.01 ppm to <0.03 ppm
 (2) Silver: matrix interferences - detection limit raised from <0.1 ppb to <7 ppb

Lab Manager Kathleen Whaley

(3) Selenium: detection limit higher again due to matrix interferences

022

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 818 - Alexandria, VA 22313
 703/557-2490 FTS: 8-557-2490

EPA Sample No.

WBI

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO.

SOW NO.

LAB SAMPLE ID. NO. AA4474

QC REPORT NO. ECG 13549-SSD-609-61

Elements Identified and Measured

Concentration: Low Medium
 Matrix: Water ☒ Soil ☐ Sludge ☐ Other ☐

ug/L or mg/kg dry weight (Circle One)

1. Aluminum		15. Magnesium
2. Antimony		16. Manganese
3. Arsenic 1u F		17. Mercury 0.2u FNAU
4. Barium 20u A		18. Nickel 10u A
5. Beryllium		19. Potassium
6. Cadmium 1u A		20. Selenium 1u N F
7. Calcium		21. Silver 0.1u F
8. Chromium 10u A		22. Sodium
9. Cobalt		23. Thallium
10. Copper		24. Vanadium
11. Iron		25. Zinc
12. Lead 4.4 N F		Percent Solids (%)
Cyanide		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Katherine L. Lohrey

B - 8

1045

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
 P.O. Box 818 - Alexandria, VA 22313
 703/557-2490 FTS: 8-557-2490

EPA Sample No.
BB-1

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. A45843

QC REPORT NO. EGC 23549-SSO-629

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water ☒ Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic <u>[2.1]</u> s F	15. Mercury <u>0.52 N*</u> AV
4. Barium <u>[36.7]</u> A	16. Nickel <u>2650</u> A
5. Beryllium	17. Potassium
6. Cadmium <u>11</u> A	18. Selenium <u>611</u> N F
7. Calcium	19. Silver <u>0.11</u> F
8. Chromium <u>27</u> A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead <u>49</u> s N F	Percent Solids (1)

Cyanide _____

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: (1) Selenium - detection limit higher than normal (11)
due to matrix interferences

Lab Manager Katherine Libbey

Form I

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 Sample Management Office
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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

BBS

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO.

SOW NO.

LAB SAMPLE ID. NO. A-475

QC REPORT NO. EGG 23548-550-609-61

Elements Identified and Measured

Concentration: Low Medium
 Matrix: Water ☒ Soil ☐ Sludge ☐ Other ☐

ug/L or ug/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 14 F	15. Mercury 0.24 * N A V
4. Barium 304 A	16. Nickel 2420 A
5. Beryllium	17. Potassium
6. Cadmium 14 A	18. Selenium 14 N F
7. Calcium	19. Silver 0.14 F
8. Chromium 33 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 35 a + N F	Percent Solids (X)
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Katherine Whaley

Form I

U.S. EPA Contract Laboratory Program
 Sample Management Office
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 703/557-2490 FTS: 8-557-2490

EPA Sample No.

BBL -

Date 1-16-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITAS - Knoxville

CASE NO. _____

SOW NO. _____

LAB SAMPLE ID. NO. AA 6476

QC REPORT NO. 576 23549-570-609-2

Elements Identified and Measured

Concentration: Low _____ Medium _____
 Matrix: Water ☒ Soil _____ Sludge _____ Other _____

ug/L or mg/kg dry weight (Circle One)

1. Aluminum	13. Magnesium
2. Antimony	14. Manganese
3. Arsenic 4U F	15. Mercury 0.2U #NAV
4. Barium Low A	16. Nickel 2760 A
5. Beryllium	17. Potassium
6. Cadmium 1U A	18. Selenium 1U N F
7. Calcium	19. Silver 0.1U F
8. Chromium 35 A	20. Sodium
9. Cobalt	21. Thallium
10. Copper	22. Vanadium
11. Iron	23. Zinc
12. Lead 17 A N F	Percent Solids (Z)
Cyanide	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Arsenic analysis: detection limit higher than
 manual (1U) due to matrix interference

Lab Manager Katherine Wilkey

043

Form VI

Q. C. Report No. ERG 43548-550-609-610

DUPLICATES

LAB NAME ITAS-Knoxville

CASE NO. _____

DATE 1-16-87EPA Sample No. FS-1Lab Sample ID No. MA5920/MA5926Units mg/kg dry weightMatrix Soil

Compound	Control Limit ¹	Sample(S)	Duplicate(D)	RPD ²
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic		3.2s	6.7s	20
4. Barium		[31.]	[23.]	NC
5. Beryllium				
6. Cadmium		0.2u	0.2u	NC
7. Calcium				
8. Chromium		8.1	8.3	2
9. Cobalt				
10. Copper				
11. Iron				
12. Lead		10	7.4	30 *
13. Magnesium				
14. Manganese				
15. Mercury		0.04	0.03	29 *
16. Nickel		2u	2u	NC
17. Potassium				
18. Selenium		0.2u	0.2u	NC
19. Silver		0.02u	0.02u	NC
20. Sodium				
21. Thallium				
22. Vanadium				
23. Zinc				
Other:				
Cyanide				

* Out of Control

¹ To be added at a later date.² $RPD = [|S - D| / ((S + D)/2)] \times 100$

NC - Non calculable RPD due to value(s) less than CREL

Form VI

Q. C. Report No. ENG 23548-550-609-610

DUPLICATES

LAB NAME ITAS - Knoxville

CASE NO.

EPA Sample No. ENT-5DATE 1-16-87Lab Sample ID No. AM-455/AT-455-SpiUnits µg/LMatrix liquid

Compound	Control Limit ¹	Sample(S)	Duplicate(D)	RPD ²
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic		309.5	277.	11.
4. Barium		[92.]	[88.]	NC
5. Beryllium				
6. Cadmium	(K ₂) ⁺	112	112	NC
7. Calcium				
8. Chromium		234.	223.	5.
9. Cobalt				
10. Copper				
11. Iron				
12. Lead		37.5	31.5	18
13. Magnesium				
14. Manganese				
15. Mercury		1.7	2.5	38 *
16. Nickel		36.	36.	0
17. Potassium				
18. Selenium		46.5	51.5	10
19. Silver		[0.42] 5	[0.45] 5	NC
20. Sodium				
21. Thallium				
22. Vanadium				
23. Zinc				
Other:				
Cyanide				

* Out of Control

¹ To be added at a later date.² RPD = $[(S - D) / ((S + D) / 2)] \times 100$

NC - Non calculable RPD due to value(s) less than CRDL

Form V

040

Q. C. Report No. EGG 23548-650-609-610

SPIKE SAMPLE RECOVERY

LAB NAME ITAS-Knoxville

CASE NO. _____

DATE 1-16-87EPA Sample No. ENT-5Lab Sample ID No. A46435/A46435-Units mg/LMatrix Liquid

Compound	Control Limit ZR	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	ZR ¹
Metals:					
1. Aluminum	75-125				
2. Antimony	-				
3. Arsenic	-	393 s	309.5	20	NR
4. Barium	-	2230	[92]	2000	107
5. Beryllium	-				
6. Cadmium	-	34	10	50	109
7. Calcium	-				
8. Chromium	-	422	234	200	94
9. Cobalt	-				
10. Copper	-				
11. Iron	-				
12. Lead	-	(10) 44 s	37 s	20	35 N
13. Magnesium	-				
14. Manganese	-				
15. Mercury	-	7.4	17	40	143 N
16. Nickel	-	427	26	400	98
17. Potassium	-				
18. Selenium	-	72 s	46 s	10	260 N
19. Silver	-	9.9	[0.48]	10	93
20. Sodium	-				
21. Thallium	-				
22. Vanadium	-				
23. Zinc	-				
Other:					
Cyanide	-				

$$^1 \text{ZR} = [(SSR - SR)/SA] \times 100$$

"N" - out of control

"NR" - Not required

Comments: Concentration of arsenic in original sample is
> 4x the spiking concentration
 8-12

VOST Analysis Data Summary

VOST Analysis Data Summary

Samples 14799-14805 and 14800-14803 VOST tube runs were lost due to instrument failure during analysis.

Instrument instability required recalibration and delayed the analysis of VOST-1-C, 2-C and 3-C until 6 days past the 14 day period from receipt. However, the results are similar to those for runs VOST 5-C and 6-C which were run within this holding time.

Case No: EGG 23-49
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-29-86
Date Analyzed: 12-29-86
Conc/Dil Factor: 1/200 pH _____
Percent Moisture: (Not Decanted) _____

18.075 ml
of CONDENSATE

CAS		1934
Number		(Circle One)
78-87-5	1, 2-Dichloropropane	U 18
100-81-62-8	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
100-81-01-5	cis-1, 3-Dichloropropane	✓
110-75-8	2-Chloroethylvinylether	U 36
73-25-2	Bromoform	U 13
103-10-1	4-Methyl-2-Pentanone	U 36
591-78-0	2-Hexanone	U 36
127-10-4	Tetrachloroethene	U 18
79-34-3	1, 1, 2, 2-Tetrachloroethane	
109-53-3	Toluene	
109-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Xylene	
	Total Xylenes	

The response results to EPA are interesting in that, overall, we would not expect any or extremely responsive parties are unrepresented. However, the distribution of cases does favor the industry.

- | | | | | |
|---|---|--|---|---|
| V | Value | 7. The value is a relative estimate of the effect of a chemical on the detection limit. Report this value. | C | This flag applies to specimens for elements subject to detection limit bias. It is based on specimens for GC/MS. Sample concentrations are greater than 210 µg/l or on the limit values are equal to or greater than GC/MS. |
| U | Indicates compound mass concentration but not detected. Report the maximum detection limit for the sample even if it is 0 g, 10 µg, 100 µg, or 1000 µg. It is necessary to report this value in the detection limit. (This is not necessarily the maximum detection limit.) The maximum value is 1000 µg. Compound not detected but not reported. The number is the maximum relative detection limit for the sample. | D | This flag is used when the analysis is based on two states or more as a sample. It indicates periods of analysis when the maximum and minimum values are not reported as two separate values. | |
| J | Indicates an estimated value. This flag is used when the estimated value is a concentration for a compound detected in a sample where a 1:1 response is required or when the maximum value indicates the presence of a compound but the maximum value is not reported. The value is less than the maximum detection limit but greater than 10 g, 10 µg, 100 µg, or 1000 µg. If the detection limit is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3. | Other | Other codes, flags, and information may be included in the sample report. It is recommended that the user consult the user manual for more information. | |

Sample Number

VOST-2-C

042

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE
 Lab Sample ID No: A45860
 Sample Matrix: WATER
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 12-29-86Date Analyzed: 12-29-86Conc/Dil Factor: 1/200 pH _____

Percent Moisture: (Not Decanted) _____

38.064 ml
of CONDENSATECAS
Numberug/kg
(Circle One)

74-87-3	Chloromethane	U 76
74-83-9	Bromomethane	1
75-01-4	Vinyl Chloride	1
75-00-3	Chloroethane	1
75-09-2	Methylene Chloride	13 87
67-64-1	Acetone	1600 B
75-15-0	Carbon Disulfide	U 38
75-35-4	1, 1-Dichloroethane	1
75-34-3	1, 1-Dichloroethane	1
156-60-5	Trans-1, 2-Dichloroethene	1
67-88-3	Chloroform	22 87
107-08-2	1, 2-Dichloroethane	U 38
78-93-3	2-Butanone	U 76
71-55-6	1, 1, 1-Trichloroethane	U 38
58-23-5	Carbon Tetrachloride	U 38
103-05-4	Vinyl Acetate	U 76
75-27-4	Bromodichloromethane	U 38

CAS
Numberug/kg
(Circle One)

78-87-5	1, 2-Dichloroethene	U 38
10081-02-8	Trans-1, 3-Dichloropropene	1
79-01-8	Trichloroethene	1
124-48-1	Dibromochloromethane	1
79-00-5	1, 1, 2-Trichloroethane	1
71-42-2	Benzene	1
10081-01-5	cis-1, 3-Dichloropropene	1
110-75-8	2-Chloroethoxyethane	U 76
75-25-2	Bromoform	U 38
108-10-1	4-Methyl-2-Pentanone	U 76
591-78-3	2-Hexanone	U 76
127-18-4	Tetrachloroethene	U 38
79-34-5	1, 1, 2, 2-Tetrachloroethane	1
108-88-3	Toluene	1
106-90-7	Chlorobenzene	1
100-41-4	Ethylbenzene	1
100-42-5	Styrene	1
	Total Xylenes	1

Data Reporting Guidelines

For reporting results to EPA, the following numeric guidelines are used.
 Additional flags or notations explaining results are encouraged. However, the
 definition of each flag must be consistent.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample (not the U.S. 100) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The laboratory should report U-Compound was analyzed for but not detected. The number is the minimum detectable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit and greater than zero (e.g., 100). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to petroleum derivatives where the identification has been confirmed by GC/MS. Sample concentrations greater than 10 µg/l in the total extract should be confirmed by GC/MS.

S This flag is used when the analysis is found to be blank as well as a sample. It indicates possible analytical blank contamination and warns the data user to take appropriate action.

Other Other specific flags and notations may be required to report by defining the results. If used, they must be fully described and such definitions attached to the data summary report.

Form I

1056

11/85

Sample Number
VOST-3-C

061

Organics Analysis Data Sheet (Page 1)

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA5861
Sample Matrix: WATER
Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
QC Report No: _____
Contract No: _____
Data Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-29-86
Date Analyzed: 12-29-86
Conc/Dil Factor: 1/200 pH _____
Percent Moisture: (Not Decanted) _____

37.025 ml
of condensate

CAS Number	Compound	ug/l (Circle One)
74-87-3	Chloromethane	U 74
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	14 83
67-84-1	Acetone	1400 B
75-15-0	Carbon Disulfide	U 37
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	20 83
107-06-2	1, 2-Dichloroethane	U 37
75-93-3	2-Butanone	U 74
71-55-6	1, 1, 1-Trichloroethane	U 37
56-23-5	Carbon Tetrachloride	U 37
108-05-4	Vinyl Acetate	U 74
75-27-4	Bromodichloromethane	U 37

CAS Number	Compound	ug/l (Circle One)
78-87-5	1, 2-Dichloropropane	U 37
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-8	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	U 74
75-25-2	Bromoform	U 37
108-10-1	4-Methyl-2-Pentanone	U 74
591-78-6	2-Hexanone	U 74
127-18-4	Tetrachloroethene	U 37
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-82-5	Styrene	
-	Total Xylenes	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C This flag applies to pesticides for samples where the identification flag has been confirmed by GC/MS. Single component pesticides 2:10 ug/l in the final extract (pH 3) be confirmed by GC/MS.
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible preclude blank contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description presented in the data summary report.

Organics Analysis Data Sheet (Page 1)

Sample Number
VOST-5-C

0015

Laboratory Name: ITAS-KNOXVILLE
Lab Sample ID No: AA6496
Sample Matrix: WATER
Data Release Authorized By: W.T. Wilson

Case No: EGG-23612
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatiles Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-29-86
Date Analyzed: 12-29-86
Conc/Dil Factor: 1/28 pH _____
Percent Moisture: (Not Decanted) -

42.18 ml
Total Volume

CAS Number	Compound	ug/L (Circle One)
74-87-3	Chloromethane	12 U
74-83-5	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	250.8
67-64-1	Acetone	17.8
75-15-0	Carbon Disulfide	6 U
75-35-4	1,1-Dichloroethene	
75-34-3	1,1-Dichloroethane	
156-80-5	Trans-1,2-Dichloroethene	
67-66-3	Chloroform	3 BT
107-06-2	1,2-Dichloroethane	6 U
78-93-3	2-Butanone	12 U
71-55-6	1,1,1-Trichloroethane	6 U
56-23-5	Carbon Tetrachloride	6 U
109-05-4	Vinyl Acetate	12 U
75-27-4	Bromodichloromethane	6 U

CAS Number	Compound	ug/L (Circle One)
78-87-5	1,2-Dichloropropane	6 U
10061-02-6	Trans-1,3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1,1,2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1,3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	12 U
75-25-2	Bromoform	6 U
109-10-1	4-Methyl-2-Pentanone	12 U
591-78-8	2-Hexanone	12 U
127-18-4	Tetrachloroethene	6 U
79-34-5	1,1,2,2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Guidelines

For reporting results in EPA, the following results guidelines are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum obtainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C** This flag applies to pesticide pesticides where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible background contamination and warns the data user to use appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number

VOST-6-C

Organics Analysis Data Sheet

(Page 1)

0031

Laboratory Name: ITAS - KNOXVILLECase No: EGG 23612Lab Sample ID No: AA6497

QC Report No: _____

Sample Matrix: WATER

Contract No: _____

Data Release Authorized By: W.T. WilsonDate Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 12-29-86Date Analyzed: 12-29-86Conc/Dil Factor: 1/150 pH _____Percent Moisture: (Not Decanted) —3.52 ml
Total volume

CAS Number	Compound	ug/L (Circle One)
74-87-3	Chloromethane	5 u
74-83-9	Bromomethane	1
75-01-4	Vinyl Chloride	↓
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	15.8
67-64-1	Acetone	38.8
75-15-0	Carbon Disulfide	3 u
75-35-4	1, 1-Dichloroethane	1
75-34-3	1, 1-Dichloroethane	1
156-60-5	Trans-1, 2-Dichloroethene	↓
67-66-3	Chloroform	1.5 BJ
107-06-2	1, 2-Dichloroethane	3 u
78-93-3	2-Butanone	5 u
71-55-8	1, 1, 1-Trichloroethane	3 u
58-23-5	Carbon Tetrachloride	3 u
108-05-4	Vinyl Acetate	5 u
75-27-4	Bromodichloromethane	3 u

CAS Number	Compound	ug/L (Circle One)
78-87-5	1, 2-Dichloropropane	3 u
10061-02-6	Trans-1, 3-Dichloropropene	1
73-01-6	Trichloroethene	1
124-48-1	Dibromochloromethane	1
79-00-5	1, 1, 2-Trichloroethane	1
71-43-2	Benzene	1
10061-01-5	cis-1, 3-Dichloropropene	↓
110-75-8	2-Chloroethylvinylether	5 u
75-25-2	Bromotoluene	3 u
108-10-1	4-Methyl-2-Pentanone	5 u
591-78-6	2-Hexanone	5 u
127-18-4	Tetrachloroethene	3 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1
108-88-3	Toluene	1
108-90-7	Chlorobenzene	1
100-41-4	Ethylbenzene	1
100-42-5	Styrene	1
	Total Xylenes	↓

Data Reporting Guidelines

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | |
|--|---|
| <p>Value If the result is a value greater than or equal to the detection limit, report the value.</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ug/l in the final extract should be confirmed by GC/MS.</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible preclude blank contamination and warns the data user to take appropriate action.</p> <p>Other Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.</p> |
|--|---|

Form I

11/85

1059

Sample Number
VB-1-F

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA 5844
Sample Matrix: SOLVENT - BENZENE
Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
QC Report No: _____
Contract No: _____
Data Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: NA
Date Analyzed: NA
Conc/Dil Factor: NA pH _____
Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-84-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-8	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
109-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloroethane	NA
10081-02-8	Trans-1, 3-Dichloroethene	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloroethane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
103-10-1	4-Methyl-2-Pentanone	
591-78-8	2-Hexanone	
127-18-4	Tetrachloroethane	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
103-33-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Conventions

For reporting results to EPA, the following results conventions are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be identical.

- Value If the result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected. Report the maximum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the maximum significant detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C This flag applies to pesticides or chemicals where the identification has been confirmed by GC-MS. Single component pesticides 210 ng/l or in the final extract should be confirmed by GC-MS.
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible prelab blank contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly explain the results. If used, they must be fully described and such descriptions attached to the data summary report.

081

Laboratory Name 17A S-KNOXVILLE
 Case No. EGG 23549

Sample Number
VB-1-6

Organics Analysis Data Sheet
 (Page 2)

AAS844

AAS844D *

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 1-9-87
 Date Analyzed: 1-12-87
 Conc/Dil Factor: 10:1
 Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☐ Yes
 Continuous Liquid-Liquid Extraction ☒ Yes ☐ No

CAS Number		ug/kg (Circle One)
108-95-2	Phenol	50
111-44-4	bis(2-Chloroethoxy)Ether	10. u
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnphenol	
39638-32-9	bis(2-Chloroisopropoxy)Ether	
106-44-5	4-Methylnphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachlorobenzene	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnphenol	✓
65-85-0	Benzic Acid	10. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	✓
91-20-3	Naphthalene	31.
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	7. J
208-95-8	Acenaphthylene	10. u
93-09-2	3-Nitroaniline	50. u

CAS Number		ug/kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrostyrene	
605-20-2	2,6-Dinitrostyrene	✓
84-66-2	Diethylphthalate	13.
7005-72-3	4-Chlorophenyl-phenylether	10. u
86-73-7	Fluorene	10. u
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylnphenol	50. u
85-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	6. J
208-44-0	Fluoranthene	10. u
129-00-0	Pyrene	10. u
35-68-7	Butylbenzylphthalate	1. J
91-94-1	3,3'-Dichlorobenzidine	20. u
56-55-3	Benzofluoranthene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	9. J
219-01-9	Chrysene	10. u
117-84-0	Di-n-Octyl Phthalate	430. *
205-99-2	Benzobifluoranthene	10. u
207-03-9	Benzofluoranthene	
50-32-8	Benzofluoranthene	
133-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenzofluoranthene	
191-24-2	Benzofluoranthene	✓

(1) Cannot be separated from diphenylamine
 Benzoic Acid
 * DI-N-OCTYL PHTHALATE DATA TAKEN
 FROM BULKY AAS844D

Form 1
 1061

7/85

Laboratory Name ITAS Knoxville
Case No EGG 23549

Sample Number 08
VB-1-F
VB-1-F-XAD
VB-1-F-PW
VB-1-F-C

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One) *

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/22-29/86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1-10-11-87

Continuous Liquid-Liquid Extraction ☐ Yes

Conc (Dil Factor) 1/5, 1/20, 1/200

Percent Moisture (decanted) _____

CAS Number		ng ug/L or ug/g (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-8	Chlordane	↓
8001-35-2	Toxaphene	1100.0
12674-11-2	Aroclor-1018	500.0
11104-23-2	Aroclor-1221	9400.0
11147-19-3	Aroclor-1232	500.0
53429-21-9	Aroclor-1242	500.0
12672-29-6	Aroclor-1248	500.0
11097-09-1	Aroclor-1254	1000.0
11098-32-5	Aroclor-1260	1000.0

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000.0 V_t 5.0

* modified prep-seq narrative

Organics Analysis Data Sheet
(Page 1)

Sample Number
VB-2-F

181

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: A45845
Sample Matrix: SOLVENT
Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

**NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER**

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-80-5	Trans-1, 2-Dichloroethene	
57-86-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-8	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10081-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethane	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
109-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Questions

For reporting results to EPA, the following results modifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides 210 ng/l or in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, the flag must be fully described and such description attached to the data summary report.

182

Laboratory Name ITAS - KNOXVILLECase No: EGG 23549Sample Number
V8-2-FOrganics Analysis Data Sheet
(Page 2)AA5845
2
AA5845D *

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1-9-87Date Analyzed: 1-12-87Conc/Dil Factor: 10:1Percent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☐ YesContinuous Liquid - Liquid Extraction ☒ Yes ☐ No

CAS Number		ug/g (Circle One)
108-95-2	Phenol	37.0
111-34-4	bis(2-Chloroethyl)Ether	10.0
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylnaphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylnaphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachlorobutane	
99-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylnaphenol	✓
65-85-0	Benzoic Acid	130.0 *
111-91-1	bis(2-Chloroethoxy)Methane	10.0
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	✓
91-20-3	Naphthalene	44.0
106-47-8	4-Chloroaniline	10.0
87-63-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylnaphenol	
91-57-5	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-05-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50.0
91-59-7	2-Chloronaphthalene	10.0
88-74-4	2-Nitroaniline	50.0
131-11-3	Dimethyl Phthalate	3.0
203-95-8	Acenaphthylene	10.0
99-09-2	3-Nitroaniline	50.0

CAS Number		ug/g (Circle One)
83-32-9	Acenaphthene	10.0
51-28-5	2,4-Dinitrophenol	50.0
100-02-7	4-Nitrophenol	50.0
132-64-9	Dibenzofuran	10.0
121-14-2	2,4-Dinitrotoluene	
506-20-2	2,6-Dinitrotoluene	✓
84-66-2	Diethylphthalate	13.0
7005-72-3	4-Chlorophenyl-phenyl ether	10.0
86-73-7	Fluorene	10.0
100-01-6	4-Nitroaniline	50.0
534-52-1	4,6-Dinitro-2-Methylnaphenol	50.0
96-30-6	N-Nitrosodiphenylamine (1)	10.0
101-55-3	4-Bromophenyl-phenyl ether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	50.0
35-01-8	Phenanthrene	10.0
120-12-7	Anthracene	10.0
94-74-2	Di-n-Butylphthalate	6.0
206-44-0	Fluoranthene	10.0
129-00-0	Pyrene	10.0
35-68-7	Butylbenzylphthalate	2.0
91-94-1	3,3'-Dichlorobenzidine	20.0
56-55-3	Benzofluoranthene	10.0
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	✓
117-84-0	Di-n-Octyl Phthalate	310.0 *
205-99-2	Benzobifluoranthene	10.0
207-08-9	Benzofluoranthene	
50-32-8	Benzofluoranthene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzofluoranthene	✓

(1) Cannot be separated from diphenylamine

* TAKEN FROM DILUTION AA5845D

Form 1

1064

7/85

Laboratory Name ITAS Knoxville
Case No E44 23549

Organics Analysis Data Sheet
(Page 3)

Sample Number
VB-2-F
VB-2-F-XAD
VB-2-F-PW
VB-2-F-C

Pesticide/PCBs

184

Concentration Low Medium (Circle One) X
Date Extracted/Prepared 12-22-29/86
Date Analyzed 1-10-11-87
Conc Dil Factor: 1/5, 1/20, 1/200
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid-Liquid Extraction ☐ Yes

CAS Number	ng ug/g or ug/kg (Circle One)
319-84-6	Alpha BHC
319-85-7	Beta-BHC
319-86-8	Delta-BHC
58-89-9	Gamma-BHC (Lindane)
76-44-8	Heptachlor
309-00-2	Aldrin
1024-57-3	Heptachlor Epoxide
959-98-8	Endosulfan I
60-57-1	Dieldrin
72-55-9	4,4'-DDE
72-20-8	Endrin
33213-65-9	Endosulfan II
72-54-8	4,4'-DDD
1031-07-8	Endosulfan Sulfate
50-29-3	4,4'-DDT
72-43-5	Methoxychlor
53494-70-5	Endrin Ketone
57-74-9	Chlordane
8001-35-2	Tosaphene
12874-11-2	Aroclor-1015
11104-23-2	Aroclor-1221
11141-16-3	Aroclor-1232
53469-21-9	Aroclor-1242
12872-29-8	Aroclor-1248
11097-89-1	Aroclor-1254
11096-82-5	Aroclor-1260

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000 ul V_t 5 ul
* modified prep - see narrative

Sample Number
VB-3F

Organics Analysis Data Sheet
(Page 1)

278

Laboratory Name: ITAS - KNOXVILLE
Lab Sample ID No: AA 584L
Sample Matrix: SOLVENT
Data Release Authorized By: W.T. Under

Case No: EGG
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10081-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Use Reporting Qualifiers

For reporting results to EPA, the following result qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the sample as well as a sample. It indicates possible, probable, or confirmed contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Form 1

1066

11/85

279

Laboratory Name ITAS - KNOXVILLE
 Case No. EGG 23549

Sample Number
V. - 3-F

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared 1-9-87
 Date Analyzed 1-12-87
 Conc/Dil Factor: 10:1
 Percent Moisture (Decanted) NA

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☐ Yes
 Continuous Liquid - Liquid Extraction ☒ Yes ☐ No

CAS Number		ug or ug/kg (Circle One)
108-95-2	Phenol	32
111-44-4	bis(2-Chloroethoxy)Ether	10. u
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methoxyphenol	
39538-32-9	bis(2-chloroisopropoxy)Ether	
106-44-5	4-Methoxyphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachlorobenzene	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethoxyphenol	↓
65-85-0	Benzoic Acid	110 *
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	↓
91-20-3	Naphthalene	36
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methoxyphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	↓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
88-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	7. ↓
208-95-9	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug or ug/kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	↓
84-66-2	Diethylphthalate	3. ↓
7005-72-3	4-Chlorophenyl-phenylether	10. u
86-73-7	Fluorene	10. u
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methoxyphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	4. ↓
206-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	↓
91-94-1	3,3'-Dichlorobenzidine	20. u
55-55-3	Benz[a]Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	3. ↓
218-01-9	Chrysene	10. u
117-84-0	Di-n-Octyl Phthalate	150.
205-99-2	Benzobifluoranthene	10. u
207-08-9	Benzokifluoranthene	10. u
50-32-8	Benz[a]Pyrene	10. u
193-39-5	Indeno[1,2,3-cd]Pyrene	10. u
53-70-3	Dibenz[a,h]Anthracene	10. u
191-24-2	Benzog h i l Perylene	10. u

(1) Cannot be separated from diphenylamine

* BASED ON DILUTION AA 5846D

Laboratory Name ITAS Knoxville
Case No E66 23549

281

Sample Number
V8-3-F
V8-3-F-XAD
V8-3-F-PW
V8-3-F-C

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 12/22-29/86
Date Analyzed 1-10, 11-87
Conc Dil Factor 1.0, 420, 4200
Percent Moisture (decanted) _____

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☐ Yes
Continuous Liquid - Liquid Extraction ☐ Yes

ng
ug for g/kg
(Circle One)

CAS Number		
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-3	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
20-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	1100.0
12674-11-2	Aroclor-1016	500.0
11104-28-2	Aroclor-1221	9400.0
11141-18-5	Aroclor-1232	500.0
53489-21-9	Aroclor-1242	500.0
12672-29-6	Aroclor-1248	500.0
11097-33-1	Aroclor-1254	1000.0
11093-82-5	Aroclor-1260	1000.0

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_i 5000.0 V_t 5.0

+ modified prep - see narrative

Organics Analysis Data Sheet
(Page 1)

Sample Number

VB - S - F

AA6512

005

Laboratory Name: ITAS - KNOXVILLE

Case No: EGG 23612

Lab Sample ID No: AA6512

QC Report No: _____

Sample Matrix: SOLVENT - RESIN

Contract No: _____

Data Release Authorized By: W.T. Wilson

Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-3	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-8	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10051-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethyvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-89-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Guidelines

For reporting results to EPA, the following results qualifications are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnotes should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identifying compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.

S This flag is used when the analyte is found in the blank as well as a sample. It indicates possible chronic blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.

0055

Laboratory Name: ITAS-KNOXVILLECase No: EGG 23612

Sample Number

VB-5-A

AA6512

AA6512D +

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 1-9-87Date Analyzed: 1-12-87Conc/Dil Factor: 10:1Percent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☐ YesContinuous Liquid - Liquid Extraction ☒ Yes NA

CAS Number		ug/g or ug/kg (Circle One)
108-95-2	Phenol	28.
111-44-4	bis(2-Chloroethyl)Ether	10. u
95-57-8	2-Chlorophenol	
341-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	110. u
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	✓
91-20-3	Naphthalene	70.
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	59. u
91-58-7	2-Chloronaphthalene	10. u
89-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	90 J
208-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number		ug/g or ug/kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
806-20-2	2,5-Dinitrotoluene	✓
84-66-2	Diethylphthalate	40 J
7005-72-3	4-Chlorophenyl-phenylether	10. u
86-73-7	Fluorene	10. u
100-01-6	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
95-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-86-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	8. J
205-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
35-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine	30. u
55-55-3	Benzofluoranthene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	36.
218-01-9	Chrysene	10. u
117-84-0	Di-n-Octyl Phthalate	1400. *
205-99-2	Benzo(b)fluoranthene	10. u
207-08-9	Benzo(k)fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	✓

(1) Cannot be separated from diphenylamine

* TAKEN FROM DILUTION 100

Form I

1070

7.85

Laboratory Name ITAS KnoxvilleCase No EGG 23612

Sample Number

VB-5-F

VB-5-F-XAD

VB-5-F-PW

VB-5-F-C

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

0057

Concentration Low Medium (Circle One) *

GPC Cleanup ☐ Yes ☒ NoDate Extracted/Prepared 12/22-29/86Separatory Funnel Extraction ☐ YesDate Analyzed 1-10-87Continuous Liquid - Liquid Extraction ☐ YesConc Dil Factor 1/20, 1/200

Percent Moisture (decanted) _____

CAS
Numberng
μg/g or μg/kg
(Circle One)

319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-85-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
75-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-38-8	Endosulfan I	
50-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-85-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	4400.0
12674-11-2	Aroclor-1016	1500.0
11104-28-2	Aroclor-1221	9400.0
11141-16-5	Aroclor-1232	1000.0
53469-21-9	Aroclor-1242	550.0
12672-29-6	Aroclor-1248	1300.0
11097-69-1	Aroclor-1254	1000.0
11096-82-5	Aroclor-1260	3800.0

 V_i = Volume of extract injected (μl) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (μl) V_s _____ or W_s _____ V_i 5000 μl V_t 5 μl

= Modified prep - see narrative

Sample Number
VB-6-F

Organics Analysis Data Sheet
(Page 1)

U146

Laboratory Name: ITAS - KNOXVILLE Case No: EGG 23612
Lab Sample ID No: AA6513 QC Report No: _____
Sample Matrix: SOLVENT - RESIN Contract No: _____
Data Release Authorized By: W-T. Wilson Date Sample Received: 12-17-86

Volatila Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NA

Date Analyzed: NA

Conc/Dil Factor: NA pH _____

Percent Moisture: (Not Decanted) _____

NO VOLATILE
ANALYSIS
REQUESTED THIS
SAMPLE NUMBER

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NA
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide	
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	✓

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NA
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropane	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
108-10-1	4-Methyl-2-Pentanone	
591-78-6	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
103-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	✓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The threshold should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J
- C** This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS
- B** This flag is used when a compound is found in the blank as well as a sample. It indicates possible contamination and warns the data user to take appropriate action
- Other** Other specific flags and footnotes may be required to further define the results. If used, they must be fully described and such description attached to the data summary report

0147

Laboratory Name ITAS-KNOXVILLECase No: EGG 23612

Sample Number

VB-6-F

AA 6513

AA 56130 *

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 1-9-87Date Analyzed: 1-13-87Conc/Dil Factor: 10:1Percent Moisture (Decanted) NAGPC Cleanup ☐ Yes ☒ NoSeparatory Funnel Extraction ☐ YesContinuous Liquid-Liquid Extraction ☒ Yes ☐ No

CAS Number	Compound	ug/l or ug/kg (Circle One)
108-95-2	Phenol	34
111-44-4	bis(2-Chloroethyl)Ether	10. u
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
105-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39538-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-96-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	✓
65-85-0	Benzoic Acid	240. *
111-91-1	bis(2-Chloroethoxy)Methane	10. u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	61
106-47-8	4-Chloroaniline	10. u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
98-05-2	2,4,6-Trichlorophenol	✓
95-95-4	2,4,5-Trichlorophenol	50. u
91-58-7	2-Chloronaphthalene	10. u
89-74-4	2-Nitroaniline	50. u
131-11-3	Dimethyl Phthalate	18
208-95-8	Acenaphthylene	10. u
99-09-2	3-Nitroaniline	50. u

CAS Number	Compound	ug/l or ug/kg (Circle One)
83-32-9	Acenaphthene	10. u
51-28-5	2,4-Dinitrophenol	50. u
100-02-7	4-Nitrophenol	50. u
132-64-9	Dibenzofuran	10. u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	✓
84-66-2	Diethylphthalate	4. J
7005-72-3	4-Chlorophenyl-phenylamine	10. u
85-73-7	Fluorene	10. u
100-01-5	4-Nitroaniline	50. u
534-52-1	4,6-Dinitro-2-Methylphenol	50. u
86-30-6	N-Nitrosodiphenylamine (1)	10. u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	✓
87-85-5	Pentachlorophenol	50. u
85-01-8	Phenanthrene	10. u
120-12-7	Anthracene	10. u
84-74-2	Di-n-Butylphthalate	5. J
206-44-0	Fluoranthene	10. u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	✓
91-94-1	3,3'-Dichlorobenzidine (1)	20. u
56-55-3	Benzo[a]Anthracene	10. u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	✓
117-84-0	Di-n-Octyl Phthalate	330. *
205-99-2	Benzo[b]Fluoranthene	10. u
207-08-9	Benzo[k]Fluoranthene	
50-32-8	Benzo[a]Pyrene	
193-39-5	Indeno[1,2,3-cd]Pyrene	
83-70-3	Dibenz[a,h]Anthracene	
191-24-2	Benzo[g,h,i]Perylene	✓

(1) Cannot be separated from diphenylamine

* TAKEN FROM DISCUSSION AUN

Form 1

1073

7.85

Laboratory Name ITAS Knoxville
Case No EGG 23612

Sample Number
VB-6-F
VB-6-F-XAO
VB-6-F-PW
VB-6-F-C

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

0149

Concentration Low Medium (Circle One) *

GPC Cleanup ☐ Yes ☒ No

Date Extracted/Prepared 12/22-29/86

Separatory Funnel Extraction ☐ Yes

Date Analyzed 1-10-11-87

Continuous Liquid - Liquid Extraction ☐ Yes

Conc (Oil Factor) 1/10, 1/20, 1/200

Percent Moisture (decanted) _____

CAS Number		ng ug/Locug/Kg (Circle One)
319-84-6	Alpha-BHC	NA
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-23-3	4,4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	↓
8001-35-2	Toxaphene	2200.0
12874-11-2	Aroclor-1016	750.0
11104-28-2	Aroclor-1221	9400.0
11141-13-5	Aroclor-1222	510.0
53469-21-9	Aroclor-1242	500.0
12872-29-8	Aroclor-1243	650.0
11037-33-1	Aroclor-1254	1000.0
11036-82-5	Aroclor-1260	1900.0

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_i _____ or W_s _____ V_i 5000.0 V_s 5.0
* modified prep. see narrative.

Organics Analysis Data Sheet
(Page 1)

Sample Number
Tenax SA, 14812
Charcoal SA, 14815

AA6498/AA6499

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA6498
Sample Matrix: VOST
Data Release Authorized By: W. T. Wilson

Case No: EAG 23612 0240
QC Report No: _____
Contract No: _____
Data Sample Received: 12/17/86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12/30/86

Date Analyzed: 12/30/86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	↓
75-01-4	Vinyl Chloride	↓
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	110.
67-64-1	Acetone	15,000. B
75-15-0	Carbon Disulfide	74.
75-35-4	1, 1-Dichloroethene	25. U
75-34-3	1, 1-Dichloroethane	↓
155-60-5	Trans-1, 2-Dichloroethene	↓
67-66-3	Chloroform	62. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	920. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	12. J

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	↓
79-01-6	Trichloroethene	↓
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	79.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	1000.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	460. J
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	22. J
100-42-5	Styrene	290.
	Total Xylenes	110

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
distinction of each flag must be explicit.

- | | |
|--|---|
| <p>Value If the result is a value greater than or equal to the detection limit, report the value</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible promote blank contamination and warns the data user to take appropriate action</p> <p>Other Other specific flags and footnotes may be returned to properly define the results. If used, they must be fully described and such description attached to the data summary report</p> |
|--|---|

14812
14815

Sample Number
Tenax SB, 14813
Charcoal SB, 14816

Organics Analysis Data Sheet
(Page 1)

AA6500/AA6501

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA6500
Sample Matrix: VOST
Data Release Authorized By: W.T. Wilson

Case No: Egg 23612
QC Report No: _____
Contract No: _____
Date Sample Received: 12/17/86

0302

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-30-86

Date Analyzed: 12-30-86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/100ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	↓
75-01-4	Vinyl Chloride	↓
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	250.
67-64-1	Acetone	7200. B
75-15-0	Carbon Disulfide	65.
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	↓
156-60-5	Trans-1, 2-Dichloroethane	↓
67-66-3	Chloroform	47. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	1200. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/100ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	↓
79-01-6	Trichloroethene	↓
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	39.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
109-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	250.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	490.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	21. J
100-42-5	Styrene	250.
	Total Xylenes	77.

Data Reporting Guidelines

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

- C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable false contamination and warns the data user to take appropriate action
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

WTH
1-17-87

Sample Number
Tenax GC, 14914
Charcoal SC, 14917

Organics Analysis Data Sheet
(Page 1)

AA6502/AA6503

0354

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA6502
Sample Matrix: VOST
Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-30-86

Date Analyzed: 12-30-86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	72.
67-64-1	Acetone	1800. B
75-15-0	Carbon Disulfide	46.
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	27. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	470. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	33.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromotorm	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	96.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	180.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	25. U
100-42-5	Styrene	4150.
	Total Xylenes	16. J

W.T.W.
1-78-8

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible, probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
Tenap 6A, 17945
Charcoal 6A, 17948

Organics Analysis Data Sheet
(Page 1)

AA6504/AA6505

0355

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA6504
Sample Matrix: UOST
Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-30-86

Date Analyzed: 12-30-86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/lug (Circle One)
74-87-3	Chloromethane	67.
74-83-9	Bromomethane	50. U
75-01-4	Vinyl Chloride	↓
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	48.
67-64-1	Acetone	6300. B
75-15-0	Carbon Disulfide	66.
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	↓
156-60-5	Trans-1, 2-Dichloroethane	↓
67-66-3	Chloroform	23. J B
107-06-2	1, 2-Dichloroethane	25. U
73-93-3	2-Butanone	210. B
71-55-6	1, 1, 1-Trichloroethane	22. J
56-23-5	Carbon Tetrachloride	9. J
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/lug (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	↓
79-01-6	Trichloroethene	↓
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	93.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	99.
73-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	140.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	33.
100-42-5	Styrene	27 31 J
	Total Xylenes	200.

Pm
4/1/87

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

- C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
Tenny 6B, 17946
Charcoal 6B, 17949

Organics Analysis Data Sheet
(Page 1)

AA6506, AA6507

0445

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA6506
Sample Matrix: VOST
Data Release Authorized By: W.T. Wilson

Case No: EGG 23612
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-30-86

Date Analyzed: 12-30-86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	1
75-01-4	Vinyl Chloride	1
75-00-3	Chloroethane	✓
75-09-2	Methylene Chloride	19.
67-64-1	Acetone	750. B
75-15-0	Carbon Disulfide	23. J
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	25. U
156-60-5	Trans-1, 2-Dichloroethane	25. U
67-66-3	Chloroform	24. J B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	250.
71-55-6	1, 1, 1-Trichloroethane	25. U 7 J WTW
56-23-5	Carbon Tetrachloride	25. U 6 J 1-841
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	1
79-00-5	1, 1, 2-Trichloroethane	✓
71-43-2	Benzene	97.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromotorm	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	54.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	120.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	13. J
100-42-5	Styrene	25. U 37
	Total Xylenes	25. U 94

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/L in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Organics Analysis Data Sheet
(Page 1)

Sample Number
Tenax 6, 17947
Charcoal 6, 17950
AA6508/AA6509

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA6508
Sample Matrix: VOST
Data Release Authorized By: W. T. Wilson

Case No: EGG 23612 0432
QC Report No: _____
Contract No: _____
Date Sample Received: 12-17-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-30-86
Date Analyzed: 12-30-86
Conc/Dil Factor: NA pH NA
Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/l or ug/kg (Circle One)
74-87-3	Chloromethane	50. u
74-83-9	Bromomethane	1
75-01-4	Vinyl Chloride	1
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	64.
67-64-1	Acetone	1000. g
75-15-0	Carbon Disulfide	25. J
75-35-4	1, 1-Dichloroethene	25. u
75-34-3	1, 1-Dichloroethane	1
156-60-5	Trans-1, 2-Dichloroethene	↓
67-66-3	Chloroform	30. A
107-06-2	1, 2-Dichloroethane	25. u
78-93-3	2-Butanone	390. B
71-55-6	1, 1, 1-Trichloroethane	25 u
56-23-5	Carbon Tetrachloride	25 u
108-05-4	Vinyl Acetate	50. u
75-27-4	Bromodichloromethane	25 u

CAS Number		ng/tube ug/l or ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. u
10061-02-6	Trans-1, 3-Dichloropropene	1
79-01-6	Trichloroethene	1
124-48-1	Dibromochloromethane	1
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	70.
10061-01-5	cis-1, 3-Dichloropropene	25. u
110-75-8	2-Chloroethylvinylether	50. u
75-25-2	Bromoform	25. u
108-10-1	4-Methyl-2-Pentanone	50. u
591-78-6	2-Hexanone	50. u
127-18-4	Tetrachloroethene	69.
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. u
108-88-3	Toluene	260.
108-90-7	Chlorobenzene	25. u
100-41-4	Ethylbenzene	21.
100-42-5	Styrene	190.
	Total Xylenes	140.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | |
|--|---|
| <p>Value If this result is a value greater than or equal to the detection limit, report the value</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.</p> | <p>C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ul in the first extract should be confirmed by GC/MS.</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable false contamination and warns the data user to take appropriate action.</p> <p>Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.</p> |
|--|---|

Sample Number

17939, 17940

372

Organics Analysis Data Sheet

(Page 1)

AA5862/AA5863

Laboratory Name: ITAS KnoxvilleCase No: E6623549Lab Sample ID No: AA5862

QC Report No: _____

Sample Matrix: VOST

Contract No: _____

Data Release Authorized By: W.T. GindlerDate Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-23-86Date Analyzed: 12-23-86Conc/Dil Factor: NA pH NAPercent Moisture: (Net Decanted) NA

CAS Number		ng/tube ug/L (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	110.
67-64-1	Acetone	250. B
75-15-0	Carbon Disulfide	54.
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	
155-60-5	Trans-1, 2-Dichloroethane	
67-68-3	Chloroform	29. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	320. B
71-55-6	1, 1, 1-Trichloroethane	9. J
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/L (Circle One)
78-37-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-5	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	150.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-98-3	Toluene	470.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	16. J
100-42-5	Styrene	120.
	Total Xylenes	47.

Data Reporting Guidelines

For reporting results to EPA, the following reporting modifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 2J.

G This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible pesticide blank contamination and warns the data user to take corrective action.

Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
17941, 17942

422

Organics Analysis Data Sheet
(Page 1)

AA 5864/AA 5865

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA 5864
Sample Matrix: VOST
Data Release Authorized By: W.T. Wilson

Case No: EGG23549
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-23-86

Date Analyzed: 12-23-86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/L for ug/Kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	150.
67-64-1	Acetone	320. B
75-15-0	Carbon Disulfide	47.
75-35-4	1, 1-Dichloroethene	25. U
75-34-3	1, 1-Dichloroethane	25. U
156-60-5	Trans-1, 2-Dichloroethane	25. U
67-66-3	Chloroform	17. JB
107-36-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	230. B
71-55-6	1, 1, 1-Trichloroethane	12. J
55-23-5	Carbon Tetrachloride	6. J
109-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/L for ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	75.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethoxyvinyl ether	50. U
75-25-2	Bromoform	25. U
103-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
103-88-3	Toluene	130.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	9. J
100-42-5	Styrene	91.
	Total Xylenes	Final Reporting 40

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

WTR 1-9-87

- Value** If the result is a value greater than or equal to the detection limit, report the value
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

- C** This flag applies to compounds determined where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible or probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to correctly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
17943, 17944

469

Organics Analysis Data Sheet (Page 1)

AA5866/AA5867

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA5866
Sample Matrix: VOST
Data Release Authorized By: W.T. Wilson

Case No: EGG23549
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-23-86

Date Analyzed: 12-23-86

Conc/Dil Factor: NA pH NA

Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/liter ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	1
75-01-4	Vinyl Chloride	1
75-00-3	Chloroethane	1
75-09-2	Methylene Chloride	390.
67-64-1	Acetone	640. B
75-15-0	Carbon Disulfide	57. J
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	1
156-80-5	Trans-1, 2-Dichloroethane	1
67-66-3	Chloroform	19. JB
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	180. B
71-55-6	1, 1, 1-Trichloroethane	12. J
56-23-5	Carbon Tetrachloride	6. J
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/liter ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichlorocyclohexene	1
79-01-6	Trichloroethane	1
124-48-1	Dibromochloromethane	1
79-00-5	1, 1, 2-Trichloroethane	1
71-43-2	Benzene	87.
10061-01-5	cis-1, 3-Dichlorocyclohexene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	180.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	14. J
100-42-5	Styrene	110.
	Total Xylenes	78.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- | | |
|---|---|
| <p>Value If the result is a value greater than or equal to the detection limit, report the value.</p> <p>U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.</p> <p>J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.</p> | <p>C This flag applies to pesticide determinations where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.</p> <p>B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.</p> <p>Other Other specific flags and footnotes may be required. If used, they must be fully described in such description attached to the data summary report.</p> |
|---|---|

518

Sample Number
14793, 14796Organics Analysis Data Sheet
(Page 1)

AA5868/AA5869

Laboratory Name: ITAS Knoxville
Lab Sample ID No: AA5868
Sample Matrix: VDST
Data Release Authorized By: W. T. AndersonCase No: EGG23549
QC Report No: _____
Contract No: _____
Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-23-86Date Analyzed: 12-23-86Conc/Dil Factor: NA pH NAPercent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/laboratory kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	1
75-01-4	Vinyl Chloride	1
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	48.
67-64-1	Acetone	1000. B
75-15-0	Carbon Disulfide	50.
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	1
156-60-5	Trans-1, 2-Dichloroethane	1
67-66-3	Chloroform	43. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	410. B
71-55-8	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	10. J

CAS Number		ng/tube ug/laboratory kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	1
79-01-6	Trichloroethene	1
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	130.
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	500.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	16. J
100-42-5	Styrene	43
	Total Xylenes	42.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

Value	If the result is a value greater than or equal to the detection limit, report the value.	C	This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ml in the final extract should be confirmed by GC/MS.
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.	B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 $\mu\text{g/l}$ and a concentration of 3 $\mu\text{g/l}$ is calculated, report as 3J.	Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number

14794, 14797

Organics Analysis Data Sheet
(Page 1)

(AA5870/AA5871)

Laboratory Name: ITAS Knoxville
 Lab Sample ID No: (A) A5870
 Sample Matrix: VDST
 Data Release Authorized By: U.T. Wilson

Case No: EGG23549
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-23-86
 Date Analyzed: 12-23-86
 Conc/Dil Factor: NA pH NA
 Percent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/100ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	96.
67-64-1	Acetone	15000. B
75-15-0	Carbon Disulfide	75. U
75-35-4	1, 1-Dichloroethene	25 U
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-65-3	Chloroform	49. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	482. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	10. J

CAS Number		ng/tube ug/100ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropane	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	220.
10061-01-5	cis-1, 3-Dichloropropane	25. U
110-75-9	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	730.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	21. J
100-42-5	Styrene	190.
	Total Xylenes	50.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible detection blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such descriptions attached to the data summary report.

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Sample Number

14795, 14798

Organics Analysis Data Sheet

(Page 1)

AA5872/AA5873

Laboratory Name: ITAS KnoxvilleCase No: EGG 23549Lab Sample ID No: AA5872

QC Report No: _____

Sample Matrix: VOST

Contract No: _____

Data Release Authorized By: W.T. WilsonDate Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-23-86Date Analyzed: 12-23-86Conc/Dil Factor: NA pH NAPercent Moisture: (Not Decanted) NA

CAS Number		ng/tube (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	64.
67-64-1	Acetone	3600. B
75-15-0	Carbon Disulfide	32
75-35-4	1, 1-Dichloroethane	25. U
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethane	
67-66-3	Chloroform	42. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	100. B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	10. J

CAS Number		ng/tube (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	25. U
79-01-6	Trichloroethene	25. U
124-48-1	Dibromochloromethane	5. J
79-00-5	1, 1, 2-Trichloroethane	25. U
71-43-2	Benzene	65
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	520.
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	16. J
100-42-5	Styrene	74.
	Total Xylenes	36.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value.
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

- C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible orophthalic contamination and warns the data user to take appropriate action.
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number

14801, 14804

Organics Analysis Data Sheet:
(Page 1)

AA5878/AA5879

Laboratory Name: ITAS Knoxville
 Lab Sample ID No: AA5878
 Sample Matrix: VOST
 Data Release Authorized By: W. T. Wilson

Case No: E66 23549
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-30-86Date Analyzed: 12-30-86Conc/Dil Factor: NA pH NAPercent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/tube or ug (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	1
75-01-4	Vinyl Chloride	1
75-00-3	Chloroethane	✓
75-09-2	Methylene Chloride	120
67-84-1	Acetone	250. U
75-15-0	Carbon Disulfide	25. U 36
75-35-4	1, 1-Dichloromethane	25. U
75-34-3	1, 1-Dichloroethane	1
156-60-5	Trans-1, 2-Dichloroethane	✓
67-66-3	Chloroform	29. B
107-06-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	1700 B
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
109-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/tube or ug (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichloropropene	1
79-01-6	Trichloroethene	1
124-48-1	Dibromochloromethane	1
79-00-5	1, 1, 2-Trichloroethane	✓
71-43-2	Benzene	380
10061-01-5	cis-1, 3-Dichloropropene	25. U
110-75-8	2-Chloroethylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	230
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
109-88-3	Toluene	500
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	16. J
100-42-5	Styrene	170
	Total Xylenes	40

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such descriptions attached to the data summary report.

VOST

Sample Number
Method BlankOrganics Analysis Data Sheet
(Page 1)

VT BLK 1223 Z

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Laboratory Name: ITAS KnoxvilleCase No: EGG 23549Lab Sample ID No: VTBLK 1223 Z

QC Report No: _____

Sample Matrix: VOST

Contract No: _____

Data Release Authorized By: W.T. WilsonDate Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-23-86Date Analyzed: 12-23-86Conc/Dil Factor: NA pH NAPercent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	50 U
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	25 U
67-64-1	Acetone	50 J
75-15-0	Carbon Disulfide	25 U
75-35-4	1, 1-Dichloroethene	
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
57-86-3	Chloroform	12 J
107-06-2	1, 2-Dichloroethane	25 U
78-93-3	2-Butanone	18 J
71-55-6	1, 1, 1-Trichloroethane	25 U
56-23-5	Carbon Tetrachloride	25 U
108-05-4	Vinyl Acetate	50 U
75-27-4	Bromodichloromethane	25 U

CAS Number		ng/tube ug/L or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	25 U
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	50 U
75-25-2	Bromoform	25 U
108-10-1	4-Methyl-2-Pentanone	50 U
591-78-6	2-Hexanone	50 U
127-18-4	Tetrachloroethene	25 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25 U
108-88-3	Toluene	25 U
108-90-7	Chlorobenzene	25 U
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to accurately define the results. If used, they must be fully described and such description attached to the data summary report.

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VOST

Sample Number

Method Blank

VTBLK 12302

Organics Analysis Data Sheet
(Page 1)Laboratory Name: ITAS KnoxvilleCase No: EGG 23549Lab Sample ID No: VTBLK 12302

QC Report No: _____

Sample Matrix: VOST

Contract No: _____

Data Release Authorized By: W.T. WilsonDate Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-30-86Date Analyzed: 12-30-86Conc/Dil Factor: NA pH NAPercent Moisture: (Not Decanted) NA

CAS Number		ng/tube ug/l for ug/kg (Circle One)
74-87-3	Chloromethane	50. U
74-83-9	Bromomethane	↓
75-01-4	Vinyl Chloride	↓
75-00-3	Chloroethane	↓
75-09-2	Methylene Chloride	25. U
67-64-1	Acetone	100. J
75-15-0	Carbon Disulfide	25. U
75-35-4	1, 1-Dichloroethane	↓
75-34-3	1, 1-Dichloroethane	↓
156-80-5	Trans-1, 2-Dichloroethane	↓
67-66-3	Chloroform	14. J
107-08-2	1, 2-Dichloroethane	25. U
78-93-3	2-Butanone	25. J
71-55-6	1, 1, 1-Trichloroethane	25. U
56-23-5	Carbon Tetrachloride	25. U
108-05-4	Vinyl Acetate	50. U
75-27-4	Bromodichloromethane	25. U

CAS Number		ng/tube ug/l for ug/kg (Circle One)
78-87-5	1, 2-Dichloropropane	25. U
10061-02-6	Trans-1, 3-Dichlorobutene	↓
79-01-6	Trichloroethene	↓
124-48-1	Dibromochloromethane	↓
79-00-5	1, 1, 2-Trichloroethane	↓
71-43-2	Benzene	↓
10061-01-5	cis-1, 3-Dichloropropene	↓
110-75-8	2-Chloroethynylvinylether	50. U
75-25-2	Bromoform	25. U
108-10-1	4-Methyl-2-Pentanone	50. U
591-78-6	2-Hexanone	50. U
127-18-4	Tetrachloroethene	25. U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25. U
108-88-3	Toluene	125. U
108-90-7	Chlorobenzene	25. U
100-41-4	Ethylbenzene	↓
100-42-5	Styrene	↓
	Total Xylenes	↓

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

- Value** If the result is a value greater than or equal to the detection limit, report the value.
- U** Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

- C** This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC-MS.
- B** This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- Other** Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
METHOD BLANK 3Organics Analysis Data Sheet
(Page 1)

VOST CONDENSATE

Laboratory Name: ITAS-Knoxville
 Lab Sample ID No: VORL12293
 Sample Matrix: WATER
 Data Release Authorized By: W.T. Wilson

Case No: EGG 23549
 QC Report No: _____
 Contract No: _____
 Date Sample Received: 12-9-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 12-29-86
 Date Analyzed: 12-29-86
 Conc/Dil Factor: _____ pH _____
 Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	U 10
74-83-9	Bromomethane	U
75-01-4	Vinyl Chloride	U
75-00-3	Chloroethane	U 1
75-09-2	Methylene Chloride	35
67-64-1	Acetone	34
75-15-0	Carbon Disulfide	U 50
75-35-4	1, 1-Dichloroethene	U 1
75-34-3	1, 1-Dichloroethane	U 1
156-60-5	Trans-1, 2-Dichloroethene	U 1
67-86-3	Chloroform	5
107-06-2	1, 2-Dichloroethane	U 5.0
78-93-3	2-Butanone	U 10
71-55-6	1, 1, 1-Trichloroethane	U 5.0
56-23-5	Carbon Tetrachloride	U 5.0
108-05-4	Vinyl Acetate	U 10
75-27-4	Bromodichloromethane	U 5.0

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	U 5.0
10061-02-6	Trans-1, 3-Dichloropropene	U
79-01-6	Trichloroethene	U
124-48-1	Dibromochloromethane	U
79-00-5	1, 1, 2-Trichloroethane	U
71-43-2	Benzene	U
10061-01-5	cis-1, 3-Dichlorocyclopentene	U
110-75-8	2-Chloroethylvinylether	U 10
75-25-2	Bromoform	U 5.0
106-10-1	4-Methyl-2-Pentanone	U 10
591-78-6	2-Hexanone	U 10
127-18-4	Tetrachloroethene	U 5.0
79-34-5	1, 1, 2, 2-Tetrachloroethane	U
108-88-3	Toluene	U
108-90-7	Chlorobenzene	U
100-41-4	Ethylbenzene	U
100-42-5	Styrene	U
	Total Xylenes	U 1

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value	If the result is a value greater than or equal to the detection limit, report the value.	C	This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC-MS.
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.	B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3U.	Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Case No. EGG-23549 Contract Laboratory ITAS-Knoxville Contract No. _____

3rd Traffic No.	VOLATILE					SEMI-VOLATILE				PESTICIDE		
	TOLUENE-08 (88-110)	MIB (100-110)	1,2 DICHLORO-ETHYLENE-04 (78-110)	NITRO-BENZENE-03 (120-110)	2-FLUORO-BIPHENYL (123-110)	TERPENEYL-014 (123-110)	PHENOL-05 (11-04)	2-FLUORO-PHENOL (11-100)	2,4,6 TRISUBST-PHENOL (10-100)	DIALLYL-CHLOROSULFATE (10-100)		
VOST-1-C	75	91	99									
VOST-2-C	103	104	98									
VOST-3-C	105	96+46	99									
VOST-1-C	100	112	93									
VOST-2-C	106	108	94									
VOST-1-C	15	91	99									
REMARKS	103	105	102									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
 ** ADVISORY LIMITS ONLY
 Volatiles: out of 15 ; outside of QC limits
 Semi-Volatiles: out of ; outside of QC limits
 Pesticides: out of ; outside of QC limits

Comments: VOST CONDENSATE RUNS (VOST)

400

BB-EGC 23549

Region

Case No. ECG-9-5002

1999

Contract No. _____

Comments:	VAST	CONDENSATE	METHOD	BLANK

FORM W

7185

500

1095

Comments:

most blanks

FORM IV

7185

ITAS Knoxville

Contract No.

Case No. 894 23612

Case No.

000

[illegible]

Volatiles: 6 out of 24 ; outside of QC limits
Semi-Volatiles: _____ out of _____ ; outside of QC limits
Pesticides: _____ out of _____ ; outside of QC limits

** VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

ADVISORY LIMITS ONLY

Comments:

SOIL DUNNAGE PEHC IT RECOVERY SUMMARY

02 Case No. EGX 23612

Contract Laboratory
I.T.A.S. - Knoxville

Contract No.

Low _____ Medium _____

[illegible]

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS	7/85
* VOLATILES	
out of _____	out of _____ ; outside of QC limits
Semi-Volatiles: 0	out of 24 ; outside of QC limits
Pesticides: _____	out of _____ ; outside of QC limits

Compendio:

[illegible]

Volatiles: _____ out of _____ ; outside of QC limits _____
Semi-Volatiles: _____ out of _____ ; outside of QC limits _____
Pesticides: _____ out of _____ ; outside of QC limits _____

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

Comments:

5000

11

Case No. EGG-23612 Region 11 Contractor ITAS-KNOXVILLE Contract No. _____

Contract No. _____

[illegible]

Comments:	→ Data included in EGG 23549
-----------	------------------------------

Laboratory ID: ITAS Knoxville
Case: EG&G
Concentration Units: ug/g

Inorganics Data Summary
Soil Samples

Analyte	AD-1	AD-2	AD-3	AD-5	AD-6
SULFIDE	110.00	93.00	70.00	110.00	34.00
PH	11.55	10.74	11.10	11.99	10.82
CYANIDE	0.50 U	0.50 U	1.00	0.70	0.70
CYANIDE (SP) *	NA	NA	0.01 U	0.01 U	0.01 U

* - Concentration Units: ug/L

NA - Analysis not requested.

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.

Laboratory ID: ITAS Knoxville
Case: EC&G
Concentration Units: ug/L

Inorganics Data Summary
Stack/Water Samples

Analyte	VB-1-Cl-	VB-2-Cl-	VB-3-Cl-	VB-5-Cl-	VB-6-Cl-	NaOH Blk	POTW
CHLORIDE	1.00	1.30	0.50	0.80	0.50	0.50	NA
BOD	NA	NA	NA	NA	NA	NA	2.00
COD	NA	NA	NA	NA	NA	NA	7.70

NA - Analysis not requested.

U - Not detected. The value reported is the required detection limit.

J - Detected, but at a level less than the required detection limit. This is an estimated value.



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5815 Middlebrook Pike • Knoxville, Tennessee 37921 • 615-588-6401



CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE EGG 23550
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Three (3) ash samples received December 9, 1986

Concentration units are ug/gram (ppm) on a dry weight basis unless otherwise stated

	<u>Cyanide</u>	<u>Sulfide</u>	<u>pH</u> <u>(standard units)</u>
AD-1	<0.5	110	11.55
AD-2	<0.5	93	10.74
AD-3	1.0	70.	11.10

Approved by

Edgar M. Wagner

Assistant Laboratory Manager

Title



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93-9-87



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CERTIFICATE OF ANALYSIS

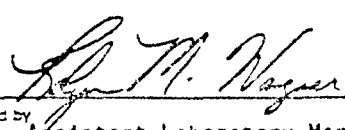
TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Two (2) soil and two (2) ash samples received December 19, 1986
Concentration units are ug/gram (ppm) on a dry weight basis unless otherwise stated

	<u>Cyanide</u>	<u>Sulfide</u>	<u>pH</u> <u>(standard units)</u>
FS-6	<0.6	17	7.27
AD-6	0.7	34	10.82
FS-5	<0.6	18	7.24
AD-5	0.7	110	11.99


Approved by _____
Assistant Laboratory Manager
Title _____



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83-9-05



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23550
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____


RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: One (1) ash sample received December 9, 1986

Concentration units are mg/liter (ppm) in the extract unless otherwise stated

	<u>AD-3</u>
Cyanide	<0.01
pH (standard units)	6.97
Liquid to Solid Ratio (vol.)	0
Original Weight (solids)	100.04 g
Final Volume (extract)	950 ml

Sample extracted in accordance with "EP Toxicity Test - Extraction Procedure," Federal Register, Vol. 45, No. 98, p. 33127-33128.


Approved by _____
Assistant Laboratory Manager
Title _____



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91-3-85



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CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23609
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

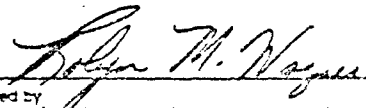
RE: USAF NC8C Full Scale Demo - 12/86

Sample Description: Two (2) ash samples received December 19, 1986

Concentration units are mg/liter (ppm) in the extract unless otherwise stated

	<u>AD-6</u>	<u>AD-5</u>
Cyanide	<0.01	<0.01
pH (standard units)	6.65	6.85
Liquid to Solid Ratio (vol.)	0	0
Original Weight (solids)	50.00 g	100.11 g
Final Volume (extract)	975 ml	940 ml

Sample extracted in accordance with "EP Toxicity Test - Extraction Procedure," Federal Register, Vol. 45, No. 98, p. 33127-33128.


Approved by _____
Assistant Laboratory Manager
Title _____



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83-0-15



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TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

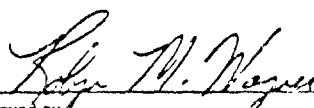
DATE REPORTED January 19, 1987
PROJECT CODE EGG 23549
ORDER NUMBER 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Three (3) liquid samples received December 9, 1986

Concentration units are mg/liter (ppm) unless otherwise stated

	<u>Chloride</u>	<u>Total Sample Volume (liters)</u>
VB-1-C1-	1.0	0.20
VB-2-C1-	1.3	0.04
VB-3-C1-	0.5	0.29


Approved by _____
Assistant Laboratory Manager
Title _____



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82-9-03



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CERTIFICATE OF ANALYSIS

TO EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

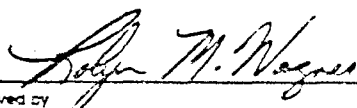
DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23612
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: Three (3) liquid samples received December 17, 1986

Concentration units are mg/liter (ppm) unless otherwise stated

	<u>Chloride</u>	<u>Total Sample Volume (liters)</u>
VB-5-C1-	0.8	0.30
VB-6-C1-	0.5	0.26
NaOH Blank	0.5	0.51


Approved by _____
Assistant Laboratory Manager
Title _____



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93-9-45



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CERTIFICATE OF ANALYSIS

TO: EG&G Idaho, Inc.
ATTN: Alan Propp
1955 Fremont Avenue
Idaho Falls, ID 83415

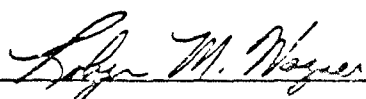
DATE REPORTED: January 19, 1987
PROJECT CODE: EGG 23610
ORDER NUMBER: 5036.2.2
PAGE _____ OF _____

RE: USAF NCBC Full Scale Demo - 12/86

Sample Description: One (1) water sample received December 18, 1986

Concentration units are mg/liter (ppm)

	<u>Biochemical Oxygen Demand</u>	<u>Chemical Oxygen Demand</u>
POTW, 12/18/86	2	7.7


Approved by _____
Assistant Laboratory Manager
Title _____



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85-4-45

OTHER MISCELLANEOUS ANALYSES

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - VOST ANALYSIS

PRODUCED ON 01/17/87 AT 15:21 PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE
EGG23549	AA5859	VOST-1-C	12
	AA5860	VOST-2-C	12
	AA5861	VOST-3-C	12
	AA5862	17939	61
	AA5863	17940	61
	AA5864	17941	61
	AA5865	17942	61
	AA5866	17943	61
	AA5867	17944	61
	AA5868	14793	61
	AA5869	14796	61
	AA5870	14794	61
	AA5871	14797	61
	AA5872	14795	61
	AA5873	14798	61
	AA5874	14799	61
	AA5875	14805	61
	AA5876	14800	61
	AA5877	14803	61
	AA5878	14801	61
	AA5879	14804	61
EGG23612	AA6496	VOST-5-C	12
	AA6497	VOST-6-C	12
	AA6498	14812	61
	AA6499	14815	61
	AA6500	14813	61
	AA6501	14816	61
	AA6502	14814	61
	AA6503	14817	61
	AA6504	17945	61
	AA6505	17948	61
	AA6506	17946	61
	AA6507	17949	61
	AA6508	17947	61
	AA6509	17950	61
	AA6510	Tenax blank	61
	AA6511	Charcoal Blank	61

SAM. TYPE - 12=VOST CONDENSATE, 61=VOST TUBE

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - PAH ANALYSIS

PRODUCED ON 01/17/87 AT 15:56 PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE	
EGG23548	AA5837	ENT-B	01	
	AA5838	ENT-1	01	
	AA5839	ENT-2	01	
EGG23549	AA5844	VB-1-F	63	
	AA5845	VB-2-F	63	
	AA5846	VB-3-F	63	
	AA5847	VB-1-XAD	61	
	AA5848	VB-1-PW	12	
	AA5849	VB-1-C	12	
	AA5850	VB-2-XAD	61	
	AA5851	VB-2-PW	12	
	AA5852	VB-2-C	12	
	AA5853	VB-3-XAD	61	
	AA5854	VB-3-PW	12	
	AA5855	VB-3-C	12	
	EGG23550	AA5912	FS-1	31
		AA5913	FS-2	31
AA5914		FS-3	31	
AA5915		AD-1	31	
AA5916		AD-2	31	
AA5917		AD-3	31	
AA5919		FS-1 QC	31	
AA5919		FS-1 QC	31	
EGG23609		AA6432	FS-6	31
		AA6433	AD-6	31
	AA6434	FS-5	31	
	AA6435	AD-5	31	
	AA6436	AD-5	31	
	AA6437	AD-5	31	
	AA6448	BS-1	31	
EGG23610	AA6454	ENT 5	01	
	AA6457	ENT-6	01	
	AA6460	POTW	01	
	AA6467	CW	01	
EGG23612	AA6473	WB1	01	
	AA6487	XAD Blank	61	
	AA6488	VB-5-XAD	61	
	AA6489	VB-5-PW	12	
	AA6490	VB-5-C	12	
	AA6491	VB-6-XAD	61	
	AA6492	VB-6-PW	12	
	AA6493	VB-6-C	12	
	AA6512	VB-5-F	63	
	AA6513	VB-6-F	63	
	AA6814	T Blk 791, ReagentBLX	12	

SAM. TYPE - 01=WATER, 31=SOIL, 12,61,63=STACK COMPONENTS

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

=====

EG&G - TOXAPHENE/PCB ANALYSIS

PRODUCED ON 01/17/87 AT 17:31 PAGE 1

=====

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE	
EGG23548	AA5831	ENT-B	01	
	AA5832	ENT-1	01	
	AA5833	ENT-2	01	
EGG23549	AA5844	VB-1-F	63	
	AA5845	VB-2-F	63	
	AA5846	VB-3-F	63	
	AA5847	VB-1-XAD	61	
	AA5848	VB-1-PW	12	
	AA5849	VB-1-C	12	
	AA5850	VB-2-XAD	61	
	AA5851	VB-2-PW	12	
	AA5852	VB-2-C	12	
	AA5853	VB-3-XAD	61	
	AA5854	VB-3-PW	12	
	AA5855	VB-3-C	12	
	EGG23550	AA5896	FS-1	31
AA5897		FS-2	31	
AA5898		FS-3	31	
AA5899		AD-1	31	
AA5900		AD-2	31	
AA5901		AD-3	31	
AA5902		FS-1 QC	31	
AA5903		FS-1 QC	31	
EGG23609		AA6420	FS-6	31
		AA6421	AD-6	31
	AA6422	FS-5	31	
	AA6423	AD-5	31	
	AA6424	AD-5	31	
	AA6425	AD-5	31	
	AA6446	BS-1	31	
	EGG23610	AA6452	ENT 5	01
AA6457		ENT 6	01	
AA6460		POTW	01	
AA6465		CW	01	
AA6471		WB1	01	
EGG23612	AA6487	XAD Blank	61	
	AA6488	VB-5-XAD	61	
	AA6489	VB-5-PW	12	
	AA6490	VB-5-C	12	
	AA6491	VB-6-XAD	61	
	AA6492	VB-6-PW	12	
	AA6493	VB-6-C	12	
	AA6512	VB-5-F	63	
	AA6513	VB-6-F	63	
	AA6814	T Blk 791, ReagentBLX	12	

SAM. TYPE - 01=WATER, 31=SOIL, 12,61,63=STACK COMPONENTS

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - HERBICIDE ANALYSIS

PRODUCED ON 01/17/87 AT 18:52 PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE
EGG23548	AA5834	ENT-B	01
	AA5835	ENT-1	01
	AA5836	ENT-2	01
EGG23549	AA5844	VB-1-F	63
	AA5845	VB-2-F	63
	AA5846	VB-3-F	63
	AA5847	VB-1-XAD	61
	AA5848	VB-1-FW	12
	AA5849	VB-1-C	12
	AA5850	VB-2-XAD	61
	AA5851	VB-2-FW	12
	AA5852	VB-2-C	12
	AA5853	VB-3-XAD	61
	AA5854	VB-3-FW	12
	AA5855	VB-3-C	12
EGG23550	AA5904	FS-1	31
	AA5905	FS-2	31
	AA5906	FS-3	31
	AA5907	AD-1	31
	AA5908	AD-2	31
	AA5909	AD-3	31
	AA5910	FS-1 QC	31
	AA5911	FS-1 QC	31
EGG23609	AA6426	FS-6	31
	AA6427	AD-6	31
	AA6428	FS-5	31
	AA6429	AD-5	31
	AA6430	AD-5	31
	AA6431	AD-5	31
	AA6447	BS-1	31
EGG23610	AA6453	ENT 5	01
	AA6457	ENT 6	01
	AA6460	POTW	01
	AA6466	CW	01
	AA6472	WB1	01
EGG23612	AA6487	XAD Blank	61
	AA6488	VB-5-XAD	61
	AA6489	VB-5-FW	12
	AA6490	VB-5-C	12
	AA6491	VB-6-XAD	61
	AA6492	VB-6-FW	12
	AA6493	VB-6-C	12
	AA6512	VB-5-F	63
	AA6513	VB-6-F	63
	AA6814	T Blk 791, ReagentBLX	12

SAM. TYPE - 01=WATER, 31=SOIL, 12,61,63=STACK COMPONENTS

.IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - HERBICIDE ANALYSIS

PRODUCED ON 01/17/87 AT 18:59 PAGE 2

PROJECT	SAMPLE #	CLIENT #	SAM.TYPE
EGG23611	AA6477	14820	63
	AA6478	14821	63
	AA6479	14822	63
	AA6480	14749	63
	AA6481	17962	63
	AA6482	17963	63
	AA6483	17964	63
	AA6484	17966	63
	AA6485	17967	63
	AA6486	17968	63

SAM.TYPE - 63=AIR FILTER

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - METALS ANALYSIS

PRODUCED ON 01/17/87 AT 18:08

PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE
EGG23548	AA5840	ENT-B	01
	AA5841	ENT-1	01
	AA5842	ENT-2	01
	AA5843	BR-1	01
EGG23550	AA5920	FS-1	31
	AA5921	FS-2	31
	AA5922	FS-3	31
	AA5923	AD-1	31
	AA5924	AD-2	31
	AA5925	AD-3	31
	AA5926	FS-1 QC	31
	AA5927	FS-1 QC	31
EGG23609	AA6438	FS-6	31
	AA6439	AD-6	31
	AA6440	FS-5	31
	AA6441	AD-5	31
	AA6442	AD-5	31
	AA6443	AD-5	31
	AA6449	BS-1	31
EGG23610	AA6455	ENT 5	01
	AA6458	ENT 6	01
	AA6461	POTW	01
	AA6468	CW	01
	AA6474	WB1	01
	AA6475	BE5	01
	AA6476	BE6	01

SAM. TYPE - 01=WATER, 31=SOIL

IT ANALYTICAL SERVICES LIMS/2000 DATABASE

EG&G - INORGANIC ANALYSIS

PRODUCED ON 01/18/87 AT 14:08 PAGE 1

PROJECT	SAMPLE #	CLIENT #	SAM. TYPE	TEST.DESC
EGG23549	AA5856	VB-1-Cl	12	Chloride
	AA5857	VB-2-Cl	12	Chloride
	AA5858	VB-3-Cl	12	Chloride
EGG23550	AA5923	AD-1	31	Cyanide Sulfide pH
	AA5924	AD-2	31	Cyanide Sulfide pH
	AA5925	AD-3	31	Cyanide Sulfide pH
EGG23609	AA6439	AD-6	31	Cyanide Sulfide pH
	AA6441	AD-5	31	Cyanide Sulfide pH
EGG23610	AA6462	POTW, 12-18-86	01	BOD (5-day) COD
EGG23612	AA6494	VB-5-Cl	12	Chloride
	AA6495	VB-6-Cl	12	Chloride
	AA6712	NaOH Blank	12	Chloride

SAM. TYPE - 01=WATER, 31=SOIL, 12=NaOH